

# Commodore NETWORK

**AUSTRALIA**  
Vol 4 No 9

September 1995

Supporting the Commodore range of 8 bit computers

## NEWSWATCH

*Inside.....*

**The Eagle  
has landed!**

**American  
writer  
Gaelyne R.  
Moranec  
joins  
Commodore  
Network**

**Link two  
Commodore  
64's  
together**

**Rod  
Gasson's  
latest EMail  
application  
reviewed**

### GEOFAX SHIPS OUT!

Good news is that the much-awaited GeoFax is now shipping, and all that have ordered it should have received a copy. Apparently, the hold-up was due to the persistence of several bugs within the code. We hope to be running a full review shortly.

### DEMO PARTY!

One of the biggest events in the Australian demo scene in years is about to happen in Adelaide soon!

The Project '95

When: September 23 & 24 (arrive on 22nd if you can!)

Where: Flinders University of South Australia (Corner of South and Sturt Road, Bedford Park, Adelaide)

Cost: \$20 for demo party & competitions etc.. (extra for some other events including the DOOM competition & sci-fi marathon)

What: C64 & AMIGA Demo, Graphic and music competitions

Typical things like disk throwing, etc..

On-the-spot C64 coding compo

DOOM Competition on the 14' screens! (team & individual) (\*)

Techno-rave (\*)

Sci-fi movie marathon (\*)

YOU!!! and any other sceners you know!

Facilities:

Two \*fourteen foot\* screens (one for the C64 & one for the AMIGA)

Toilets ;)

Food vending machines

On-site \*cheap\* tasty Pizza!! (being organised - \$12 for 18")

Lots of seating where the 14' screens are (lecture theatres)

Desk space galore (being organised)

(bring own power boards and extension cords)

A fair amount of under-cover space to roll out a sleeping bag, or, stay up for the whole weekend!

Prize Money & Entry:

Prize money will be distributed according to the number of entrants to each competition. Thus the more people that come, the bigger the prizes!

Overseas entries can be made through the Project 95 IRC bot, or via email to [gardners@cs.flinders.edu.au](mailto:gardners@cs.flinders.edu.au) for C64, and [salmon@cs.flinders.edu.au](mailto:salmon@cs.flinders.edu.au) for AMIGA.

All Australian crews wishing to make an entry \*must\* have a member present.

Overseas entries, where no crew member is present will only gain placings. Prize money will hence be distributed to the top three entries which have representation at the party.

Competition Rules:

No ridiculously long demos! We won't set a time limit, but if lots of people get bored watching we will stop it.

Demos/Music/Graphics will be shown on either:

\* A1200 030-40, at least 4MB

\* a PAL C64 with Action Replay v6 and a 1541-II

Sounds like it could be great! So pop along if you can!



DEAR SUBSCRIBER

Once again I must offer my apologies!

Unfortunately, due to printer failure and our inability to locate replacement parts for a period of over three weeks, the September issue is well behind.

In an effort to rectify what is becoming an embarrassing gap between our publishing date and the date of actual publication, we have decided to present this issue as being for both the months of September and October. An additional issue will be added to all subscriptions in order to compensate for this missed edition.

We have also decided to move Disk-Coverer to December, with future issues of the disks appearing in December, March, June, and September from now on. This should give us that little extra time to catch up with things over the next few months.

Warren



C.N.P.D

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Commodore Network P.D.,  
44 Balfour St., Nailsworth,  
S.A. 5083

CONTACT US ON:

(08)342 1197 (NEW number!)  
(018) 853 702 (mobile)  
bevb@tolstoi.apana.org.au (Email)

**WE ARE BACK IN BUSINESS!**

Yes, it's taken a while, but we've finally caught up. And, to reward our faithful customers for their much appreciated patience and understanding, we are giving away, yes, you read right **GIVING AWAY!** a free disk of P. D. software **of YOUR choice** from the relevant catalogue for every \$10 spent by you in orders received before the end of NOVEMBER. If you are ordering from the **PREMIUM, GAMES,** or **128** libraries, you are entitled to choose from any of those catalogues. If you are purchasing from the **BUDGET** or **GEOS** listings, you are restricted to these. If you choose to mix your order, calculate the number of disks you may choose in both price brackets and then add any amounts left over from both together and select a disk from the category in which the larger portion is spent.

NEW!

After months of searching, we've finally found a source of disks. These are top quality, with the 5.25" disks coming with sleeves but no labels

5.25" DD (suitable for Commodore)  
\$17.50 for 50  
5.25" HD (suitable for PC)  
\$21.00 for 50  
3.5" DD (box of 10 disks)  
\$6.50  
3.5" HD (box of 10 disks)  
\$7.00

#### THE DISK-COVERER 64 COMPENDIUM

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#### THE DISK-COVERER GEOS COMPENDIUM

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S.A. 5083

**PLEASE NOTE: OUR BONUS DISK OFFER IS NOT APPLICABLE TO SPECIAL OFFERS,  
INCLUDING THOSE MADE ABOVE!**



NAME:.....

ADDRESS:.....

.....

TOWN:..... P/code:.....

Phone:.....

Could you please send me the following items:

☐

Disk-Coverer 64  
compendium

☐

Disk-Coverer GEOS  
compendium

☐

Disk-Coverer 128  
compendium

☐

complete  
compendium

I would like the following catalogue items I've chosen:

Catalog	Disk No.	Price	catalog	Disk No.	Price
Total column one:			Total, column two from column one		
			post/packing		2.00
			Total:		

Please write out your BONUS selections on a separate piece of paper and securely attach it to this order form. Make sure it also has details of your name and address on it in case the two are separated.

C.N.P.D

Phone (08) 342 1197

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AUSTRALIA

Supporting the Commodore range of 8 bit computers

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# Editorial

It's been over three years since C.N. first hit your letter boxes. At that time, Commodore publications were dropping thick and fast, and those that were still covering 64 material only did so as a small part of a much larger publication. Artie, my right-hand man, was, at this time, writing a GEOS column for the Australian Commodore and Amiga Review (Commodore was mentioned before Amiga only for cosmetic purposes - the mag was most assuredly an Amiga publication with only a couple of pages of C-64 input). At that point, layout and design was undertaken by Owen James, who also wrote for A.C.A.R., writing the other Commodore page appearing within that magazine.

It had taken me a long time to decide to "go for it" and produce Network. It had been no easy decision! I didn't know how many 64/128 users were out there, and whether those users would, like me, like a bit more meat in a magazine than was apparently available in most! And, well, I just didn't know where to start! I'd never published anything before. Geez! I even struggled to write letters to people, let alone the articles that would be necessary.

It's all history now, but C.N. would never have gotten off the ground without the help of many. It is now time once more to ask for help with our annual subscription drive! In this issue, you should find an insert. This is part of our "Introduce a Friend" promotion.

## INTRODUCE A FRIEND!

Our "Introduce a Friend" promotion invites you to invite a friend, acquaintance, family member, or whatever, to join us in the Commodore Network. As encouragement, those of you who introduce a new subscriber will receive a subscription BONUS! This will be the equivalent of one issue for each new member subscribing for a period of three or six months, two bonus issues for subscriptions of a year, or three extra issues for a sub of two years! All introductions are CUMULATIVE, that is that if you introduce two people, you get two lots of bonuses. And if your friend also introduces a friend, he can receive a bonus of his own. All you need do is photocopy or make up a reasonable facsimile of the form enclosed in this issue, fill it in, and post it down to us. We'll even give you the option of turning your

bonus issues into bonus buys (current subscribers only!), with a discount of \$2.50 per bonus issue on all merchandising lines. In other words, if you receive two bonus issues, you may choose to relinquish these and spend the \$5.00 on items from merchandising. Sorry, no change will be credited, you must spend the whole amount on any one certificate or loose any left-over amounts. If you introduce two or more friends, you can "spend" one (or more) introduction, and keep any additional as subscription bonuses if you so wish.

This offer is also open to all our overseas readers as well!

## IN THIS ISSUE

This month we are missing a couple of our regulars in "Venturing Inn", "On The Scene", and "ClubLinks" due to a couple of unforeseen circumstances. As a result, this issue could well be smaller than is the norm.

The good news is that we have had a good response to our call for writers, although we still need longer items of around the 2000 plus word mark.

This issue we will be introducing one new writer in Robert Cloosterman, who has written about cleaning your MPS-1230. Hopefully, Robert will be writing several future articles dealing with various projects for our "Expanding Horizons" column.

Welcome, Robert!

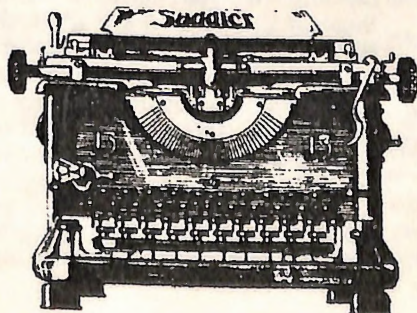
We also welcome Gaelyne Moranec as our new telecommunications expert and writer of "Surfing The Nets". Great to have you aboard, Gaelyne!

And we welcome an old friend, Kevin Power, back amongst us with a re-born "Bits & Pieces" column. Welcome back, Kev!

If any of you out there have something you'd like to write about, I'd love to see it!

Warren

Warren Naismith - Editor







Seven months ago I had the brief pleasure of trying out a BBRTC [since returned - sigh], sent to me by Jeff Carey of C64/128 Public Domain Software [SA] South Australia. The BBRTC [Battery Backed Real Time Clock] is a small neat little device that plugs straight into Port 2 (while your Commodore is OFF!). This leaves your joystick or mouse plugged into Port 1 for operation with GEOS. On my set-up, I plugged it into Port 2 on my #2 C128D.

The BBRTC is a semi-fragile device that must be handled carefully, by the 'wings' on the sides, according to the documentation. Handling the BBRTC by the main body may result in bending of the electronic connection of the main RTC module to the connector. And since Port 2 is connected to the keyboard, you must not have any keys pressed or in the locked position, while accessing the BBRTC. The programs supplied do take into account leap years, but naturally enough, do not adjust for Daylight Savings time in your areas.

A disk containing software is provided for the user to enable the correct set-up procedures. The first program that you use is 'STARTBBRTC.V1.0'. This is a BASIC program for the C64 mode, and it must be used on initial use of the BBRTC to activate it. When you RUN it, the program displays PPI(c)1993 and 'The BBRTC has been started'.

Next you need to set the BBRTC

### Quasi-Review of the BBRTC

time by running the BASIC program 'SETBBRTC.V1.0' (again, only for C64 mode). When you RUN it, the program displays SETBBRTC.V1.1 PPI(c)1993 and you then follow the on screen prompts to enter the Year {1977-2100}, Month {1-12}, Day of Month, pressing RETURN after each entry. The program then re-displays the data you have entered and prompts for correctness. The program then prompts you for the Hour {24 hour format}, Minutes {0-9} and Seconds {0-59}, again pressing RETURN after each entry. You are again prompted for correctness, after which it displays Programming BBRTC then Programming Complete.

The third BASIC program, READBBRTC.V1.0, RUN like those above, is to simply display the contents of the BBRTC.

The GEOS programs provided are 'BBRTCtoGEOS', a 40 column Auto-Exec utility, and 'GEOSToBBRTC', a 40 column Application program. Once you have RUN the BASIC programs, you then BOOT up GEOS (either version), and transfer these two programs to your Boot disk, somewhere after your Configure file.

Although BBRTCtoGEOS program is an Auto-Exec, and it does run correctly in 40 columns, note that it does not if you Boot up in 80 column mode. In 40 columns the date and time are correctly retrieved from the BBRTC, but in 80 columns the BBRTC is not even

read, which means that you must then double-click on BBRTCtoGEOS to read it, which switches you briefly to 40 columns and returns after the program is RUN. The Auto-Exec program will run just as an Application program.

You can also set the BBRTC from GEOS. After BOOTing up, you manually set the GEOS deskTop clock, and then double-click on GEOSToBBRTC Application. As the name implies, the BBRTC has the date and time written to it, to be stored by the battery. Once this is complete, you are returned to deskTop. And that's essentially it!

### A Few Things to Notice

In 80 columns the reading of the BBRTC with BBRTCtoGEOS was not always accurate. The time was never really correct, and when clicking on the deskTop clock display with the printer, the Day/Date was automatically incremented to the next day instead of remaining correct, and the Time 'jumped' to correct itself, without my adjusting the numbers in the display. Pressing RETURN exited to the deskTop. A second run of BBRTCtoGEOS would correct the Date, and the Time would then stay correct, which seems like a lot of trouble to me, and it is not easily explained. If I hadn't just kept pushing the program, maybe I wouldn't have found that out, it is just that I wanted it to work properly and so kept trying it.

### Summation

I felt that the programs could have been refined to work in 40 or 80 columns, so that an 80 column BOOT up would work as correctly as the 40 column BOOT up, but we can't have everything. All in all, it is a nifty device to be sure, but the CMD RTC in the SmartMouse [reviewed in June95 CN] by far overshadows the BBRTC offering in actual practice and use. In all fairness, if you have a CMD SmartMouse, you don't need the BBRTC. But if you already have a mouse, and you don't want another, and you don't mind booting only in 40 columns (read that as slower than 80 columns), then the BBRTC could be for you.

If you are interested in the BBRTC, there are two outlets, one



in the USA, the other in Germany. Enquire further for updated prices and shipping details. [Allow for conversion rates and bank charges].

Performance Peripherals Inc.  
5 Upper Loudon Road  
Loudonville NY 12211 USA  
Performance Peripherals Europe -  
BBRTC 50DM + S&H 15DM  
Michael Renz Holzweg 12  
53332 Bornheim GERMANY

### Readers Three Wishes And All That

From Vic Majury of Banora Point NSW, "Thank you for your prompt reply [CN Jun95] to my enquiries. My apologies for not giving details of my set up. My excuse is that I was on holidays away from home and was too relaxed. The equipment I am using for GEOS consists of a C128D with second C1571 drive. The software is GEOS128 v2.0.

It seems that I did not clarify my first question clearly. It's not with Work disks I am having the difficulty. I realize that there has to be enough space on the disk to write to it, or work with it. I have the problem with, for example, Disk Coverer #10 GEOS disk, that the files which require geoWrite so that they can be read, give the warning 'Disk near Full' and to 'move or delete files' before continuing. Q1. Is it necessary to have free space on the disk being read just to READ the files? It doesn't seem to be a requirement to look at graphics. There is plenty of space on the Work disk with geoWrite which I run in Drive A with CN Disk in B. I have tried them around the other way but it made no difference. I hope this makes sense to you. Maybe you could add an addendum to your reply in CN.

Q2. With respect to your reply to my second query, I assume from your answer that geoWrite v2.1 should be able to read earlier versions?. Sometimes it does ask the question 'Do you want to Convert?', but it won't read all my geoWrite files?. Then the program asks for the version of geoWrite that was used to create the document. I have tried out WrongsWrite, and I can see it will be very helpful. Previously I had to search for the appropriate version. Thank you once again for your very

prompt and helpful reply".

Gg. You are welcome Vic. Now, let's see what we can do. A1. Yes, it is necessary to have free space on the Data disk being read, just to READ the files with geoWrite. The answer does come back to your Work disks, although in a different way, now that I know the facts. GeoWrite doesn't know in advance that you only want to READ a file, so it warns you of the limited space available on the 'Data Disk' so that you know that there is no room for 'possible' additional text, font or style changes etc. Trying the disks the other way around in the drives does nothing to help, as you found out. For more information on correctly organising Work Disks and Data Disks, refer to the section 'GEOS Work Disks' in 'The World of GEOS Handbook I' [\*\*].

Since you use v2.0, you can use the multi-file copy option to transfer the geoWrite text files to your Work disk, where you will be able to OPEN them with geowrite to read and / or print out, as you require. If you want to, you can print them out without OPENing the file with GeoWrite, simply select the file, then click again to grab the ghost icon, and dump it on your printer icon (make sure your printer is ready first). That would neatly overcome the need to move the files, or trying to OPEN them. For more information on geoWrite, refer to the sections 'GeoWrite Part 1 The Menus', and 'GeoWrite Part 2 Editing' in 'The World of GEOS HandBooks II & III' respectively.

If you only want to VIEW the contents of a geoWrite file, you could try the PD program 'QuickView' which is often provided on the CN GEOS disks. QuickView will simply display the text on screen for you to read, without OPENing the document as geoWrite does, per se. I would like to point out for other readers, that users should always work on a 'backup' of a disk like the CN GEOS disk, and not work on it directly.

A2. Yes, geoWrite v2.1 should be able to read earlier versions of Data files. When the Dialog Box for 'Do you want to Convert?' is displayed, click on the OK gadget, and v2.1 will upgrade the Data file automatically. As for why it won't read all of your geoWrite files, it is puzzling without further

information. GeoWrite will balk [spit the dummy] if there is some corruption in the Data file, or perhaps if a Header is corrupted. Before this correspondence, I have not come across double-clicking on a geoWrite Data file that 'asks for the version of geoWrite that was used to create the document', unless you were perhaps using geoWrite v1.1 and trying to OPEN a v2.1 Data file. Most unusual in GEOS for a Data file to 'call the shots' of which version it requires the parent Application to be!, unusual indeed. The only similar DBox that I can think of, pertains to trying to use a another geoWrite program that has been 'keyed' to a different GEOS system ID. You are then required to Boot the GEOS System that the Application was keyed to!. I am pleased that you already had a version of WrongsWrite to manipulate the version of Data file, to get you out of the deadlock.

From Michael D Pearson of Warwickshire UK, "... when things get back to normal, whatever that is. ... Unfortunately my secondment [work posting] has been extended for 1 or 2 or ... months and I am still only home ... for a day or so every two weeks, and GEOSing therefore has been on hold for all of this year to date. How I miss it ... and I feel that I am letting down all the GeoPhiles in ICPUG and GeoCLUB, but it just can't be helped at the moment.

Anyway, ... I do grab a little time to read CN - usually on the train travelling to / from home - and of course GEOSgenie is the first article to be read!. Do keep up the excellent articles, each containing a plethora of enthusiastic and intense GEOS offerings. CN altogether is a fine user friendly publication that has always arrived!. I really do appreciate what Warren et al do to keep it regularly appearing. Well, must go and pack my case once again!.

Gg. Thanks for dropping us a line Michael, in your very limited spare?! time. There are many more readers, with only spare time to share, that we never hear from!. You are a real exception to the rule.

From Jeanne Lyons of Campbelltown NSW, "I have a C128D with a second 1571 disk drive and a St LC10 printer {connected with a Super Graphix Interface}. I have been learning



GEOS for approximately 12 months now. I use GEOS 64 v2.0 and I have no problems printing geoWrite or geoPaint files.

I have just begun to learn how to use geoFile but after setting out a form I can't get it to print out. I get the response 'printer not accessible'. What am I doing incorrectly? Any help you can give me would be appreciated".

Gg. Since printing from geoWrite and geoPaint is no problem, but geoFile responds with 'printer not accessible', it does narrow down the source of the printing problem. I haven't come across this particular problem yet, but I must admit that geoFile is one of the least used programs in my GEO-set. A couple of things that come to mind are - checking that your printer driver is on the same Work disk as the Application, re-check all the connections including the interface, double-check that the printer is on (I am sure that you did this one already anyway).

GeoFile sometimes freezes on me for no apparent reason, after it had done that too many times, my interest moved on to other GEOS programs. geoFile is the most troubled program in GEOS as far as I know. I realize that this doesn't help you yet, so I have added your question here. Perhaps another reader with the same set-up may be able to offer some help.

From Ray Whitehead of Mount Isa QLD, "I have been running a C64 with 1541-II disk drives (two of), with a RAMLink from CMD fitted with a BSW GeoRAM unit in the RAM Port. I use GEOS 2.0 and I am keen to see the extent to which this set-up can be pushed.

I have recently purchased a second hand C128 and since I didn't receive any disks etc with it, I am hoping the HandBooks will help me to understand some of the booting Procedures in the C128 mode.

I am keen to get a set-up which will allow me to go into the Internet and BBS's, and to this end have purchased a Maestro 2400ZXR modem and a SwiftLink Cartridge to attach to either computers, i.e. C64 or C128, working with RAMLink and GEOS. Could you tell me if a Terminal program for the GEOS environment has been produced? There are a few NET

entry providers outside Capital cities and you can't use a local call access. This means extra expense. As my wife and I are on the pension, I hope inexpensive entry for ordinary folk is forthcoming in the near future.

I enjoy your articles in CN GEOSgenie and any answers you give, will help some of us senior citizens keep up. Please feel free to use any of this letter in your articles, i.e. GEOS Terminal Program, and what we have to do to get in to the Telecommunications system".

Gg. Thanks for the lead into the Readers Feedback, Ray. There isn't that much to the Booting procedures on the C128 actually, You just put your disk in the drive (I gather though that you don't have a 1571 drive), set your 40/80 display down for 80 columns, then power up. If there is a boot track on the disk it will be read into memory and it's commands followed, and the program booted. I have over simplified it here though, for brevity. But for more information on auto booting disks, refer to the section 'Examining 1571 Sectors' in 'The HandBook of Commodore Disks'.

Contrary to what most people think, there is a terminal program for GEOS. GeoTerm128 and GeoTerm64, written by Bill Coleman, are available on the RUN Power Pak II package now being sold by CMD I believe. And I have just looked up something that I could only vaguely recall. I remembered that GeoTerm needed a 'patch' program called 'GEOTERM.PATCH' which was distributed on GeoWorld 13 Disk back in 1990. Quote "The Patch is a BASIC program for GeoTerm v2.x. It will make the phone dialler default to one modem type of the other (you select during patching). To use the patch, you copy GeoTerm v2.0 (either version) onto a blank disk (it must be the first program on the disk), click on GEOTERM.PATCH and follow the prompts. As always, run this program on a copy, never the original". [end quote]

Much to most people's surprise, I have no connection with BBS's out of personal choice and specific interests. However, I am sure that we have some readers who could write in with some specific entry

information for you, to help you out with your future ambitions.

Next month, will be as much a surprise to you, as it will be to me. As there is no other Review material for GEOS, we'll just have to invent something to talk about, 'necessity has always been the mother of invention' for me. Catch you then, happy GEOSing.

Send in your comments, or great GEOS discoveries, and I will respond when I can in this column, unless you wish a private reply, in which case please send a SSA(Business)E and I will write you back. Special thanks to Rick Coleman (Photo Mover fame), our USA GENie BBS correspondent for your continued support, and to Michael Renz (Performance Peripherals Europe), our German correspondent, for your continued support.

**CN GEOSgenie**  
**PO Box 635**  
**Blair Athol 5084**  
**South Australia**

{\*\*} The World of GEOS HandBook Series (I, II, III), and The HandBook of Commodore Disks, are currently available from JMV Grafix

## JMV Grafix

The Handbook of Commodore Disks	\$15
The Handbook of Commodore 128	\$15
The Handbook of Commodore 64	\$15
World of Geos Handbook	\$15
World of Geos Handbook II	\$15
World of Geos Handbook III	\$15
Geos in Review	\$10

Prices include Postage and Handling within Australia, and are quoted in \$A. Overseas orders please add \$A5.00

**J M V**  
**G r a f i x**

**PO Box 635, Blair Athol,**  
**South Australia, 5084**



G'day All,

Warren tells me he doesn't mind having a "septic tank" (Yank) write about surfing the nets, so I thought I'd get the show on the road by starting at the beginning. I know I could start off as if everyone reading CN knows the basics of using a modem, but I believe in starting off on the right foot. Oh, and just because I'm a Yank, this doesn't mean I'll ignore the issues users in Oz have to deal with. For those details, I'll be depending on Rod Gasson to keep my articles correct (hopefully). Since he'll be proofing the articles before I send them to Warren we shouldn't have him whinging about technical errors in the Letter Link column - well, at least not about this column. <grin>.

Lets begin with the equipment and software we need to begin surfing the nets.

## Modems

I probably don't need to say this, but aside from the computer itself, you will also need a modem and a phone line to use it with. It's my understanding that in Australia, the modem should be one which is approved by Austel. Some people do use non-approved modems but if they get caught, they'll have to deal with some pretty nasty fines. When I was told about this whilst still in the States I imagined that modems would be very difficult to find. This hasn't proved true at all, especially in the "For Sale" (i.e. 'used') markets that I've been following online.

I've met a lot of users who start off using a Commodore compatible modem of the type that connects to the USER Port directly. Many of these modems were 300, 1200, 1200/1275 or 2400 baud. At this stage of telecommunications I really can't recommend any of these, with the possible exception of the 2400 baud models. Why? Because they make connecting to other systems far more difficult than it needs to be.

Some of the newer modems in use by those who run Bulletin Boards will not connect correctly, mainly because they aren't optimised to recognise the slower modems, or, the owners don't know how to set them correctly. Also, there's an incompatibility between the Bell/CCITT standards at speeds of

1200 baud or below. All speeds 2400 and above use CCITT so no incompatibilities exist. It simply makes life easier to go an extra step and ensure that you can connect to all the systems you want to call, rather than trying to go the "easy" or "cheap" way by using older model modems.

## Interfaces

So if you're not going to use a Commodore compatible modem, what do you need? First, you'll need an interface to fit between the computer and the modem. If you intend to use a high speed modem, you'll need a special type of interface, which fits into the Cartridge Port. I refer to these as "Cartridge Port Interfaces" as this is where they plug in and it's a bit easier to relate to than "ACIA/UART Interface", which is the more technical name. There's two choices: a SwiftLink cartridge from CMD, and the Hart Cart from Hart technologies.

These cartridge interfaces let you use the modems which are currently available and you can zoom at speeds up to 28.8k for the modem itself, with even faster communication between the computer and the modem.

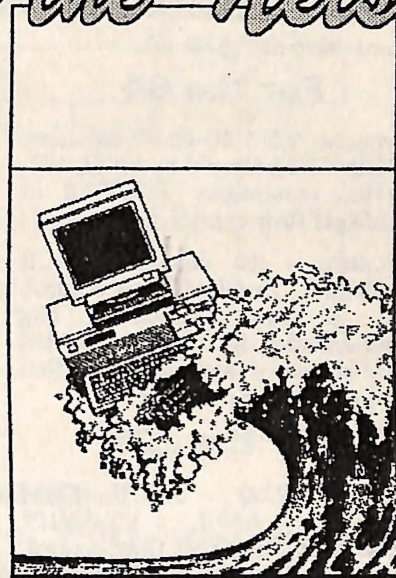
For "slower" non-CBM modems (from 300-2400 baud), you can use a User Port type interface. I asked Rod where one could find these interfaces here (new) and was told "You can't". Used ones can be found on occasion, or you could order one from overseas. Aprtek, Omnitronix and Peak Peripherals

are three "brand name" User Port RS232 interfaces. Companies which sell these items through the mail are Software Support International, Software Hut and Creative Micro Designs Inc. The other choice is to build one for yourself. An enterprising reader could probably do a bit of business by building these and selling them to others who aren't inclined to hack hardware. Another alternative is to get online even with a slow modem and browse the "For Sale" ads in Commodore message areas as well as advertise for what you're looking for, as many of the very best deals when it comes to Commodore hardware can be found online - and don't forget to check the MicroMart in CN.

## Term Programs

You'll also need some software which will let the computer and modem work together. Software of this type is usually referred to as a 'term program'. If you want to get real fancy you can call it a 'terminal program', but I prefer 'term' or 'term program'. There are a handful of shareware and commercial programs available. Which one is best for you depends on a lot of different things - including your preferences.

Here's a list of term programs which allow use of standard Commodore compatible modems, or non-CBM modems using either style interface (User or Cartridge Port). Unless otherwise noted, all of these will make use of REUs and other high powered devices such as





a hard drive or RAMLink.

### For the 64

Novaterm 9.5 - 40 or 80 columns, ASCII, CBM Graphics, ANSI, VT-52/102, emulations. RTS/CTS or Xon/Xoff flow control. Shareware.

Fritztterm - 40 columns, ASCII emulation. Xon/Xoff flow control. Has a huge buffer. Not recommended for Internet use, but excellent as a high powered first term program. Shareware.

### For the 128

Desterm v2.00 - ASCII, CBM Graphics, ANSI, VT-52/102 emulations, Xon/Xoff flow control. Does not allow use of a RAMLink, but will access other CMD devices. Has excellent implementation of ANSI and VTxx emulations. Does NOT have RTS/CTS flow control. Shareware.

Desterm v2.01 - A Beta version of Desterm (above) which allows use of a RAMLink. It locks up during file transfers on occasion but some

RAMLink users prefer it. Shareware.

Dialogue128 - ASCII, ANSI, CBM Graphics, VT-100 emulations. RTS/CTS or Xon/Xoff flow control. Less than perfect ANSI or VTxx emulations, but has RTS/CTS flow control which most other 128 term programs don't have. Commercial program available from CMD and other overseas sources.

Bobstern Pro 128 - ASCII, CBM Graphics, VT100 emulations, Xon/Xoff flow control. No longer available commercially, but can be found in the used market.

### For the 64/128

ACETerm - 40/80 columns, VT-102 emulation, RTS/CTS flow control. Currently its only file transfer protocol, "FX", can only be used by those who phone UNIX systems.

I've mentioned the most

"important" items in this list, mainly because they come into play depending on what type of modeming you intend to do.

## Terminal Emulation

Emulation controls how the cursor movements are interpreted and how things are displayed on your screen.

For those who wish to check out the Internet, emulation can be important as some of the Internet programs require the use of VT-100 or higher.

For phoning IBM or even some of the new C64 and 128 boards, ANSI emulation can be used. ANSI is very common on IBM BBS's, and usually toggled "on" for new users. If you use ASCII (plain text) emulation and phone a BBS which uses ANSI, you'll see a bunch of mumble jumble which looks like "[1;34m" intermixed with the text. What you are seeing are ANSI codes as they appear in text format. You can either turn on ANSI emulation in your term program or try to change your settings on the BBS so it doesn't send ANSI codes. If your term program has the ability to display ANSI, make use of it when you can as it's very colourful and adds to your modeming experience.

CBM Graphics emulation is usually used for BBS's which are run on Commodore 64 or 128's. If you're phoning a Commodore BBS, viewing the menus in colour is fun and worth checking out.

## Flow Control

Flow control is another consideration which becomes more important when you use a high speed modem. As you would expect, flow control is how data is handled between the modem and the computer. If data comes in too fast without any control over it, some of the data will be lost, so there are two methods of flow control to prevent this problem. There's "RTS/CTS", which puts the ball in the modem's court, letting the modem (hardware) deal with

incoming data. The second and older method is "Xon/Xoff", which is implemented through the term program (software). It's preferable to let the hardware (RTS/CTS) handle flow control rather than the software (Xon/Xoff). There is also DTE/DCE (hardware) but this is rarely used.

That's it for this time. Next time, we'll cover getting online. Meanwhile, I'll leave you with addresses for finding the hardware and software mentioned, a handy chart with the features of the term programs I've mentioned. If Warren is so inclined, I've also included the instructions to build a simple RS232 interface, which you can build yourself or have someone build for you. Speaking of interfaces, as I saved the file with the diagram, named "simple interface", I thought to myself that I'll probably never see a diagram labelled: "Incredibly Difficult Interface". :-). I've used home-made interfaces but I've always been fortunate enough to have technically minded friends who were willing to do the "work" for me. If you need an interface but don't know how to build one, find a friend who likes this kind of stuff and ask them if they'd be willing to tackle the "challenge" for you. You'd be surprised at how effective the word "challenge" can be with hardware hackers! Happy Modeming!

**Gaelyne R. Moranec**  
**90 Hilliers Rd**  
**Reynella S.A.**  
**5161**  
**Australia**

Email address:  
 moranec@hal9000.apana.org.au  
 Netmail address:  
 3:800/809.128  
 WWW Home Page:  
[http://www.msen.com/~brain/guest/Gaelyne\\_Moranec/index.html](http://www.msen.com/~brain/guest/Gaelyne_Moranec/index.html)



## Addresses:

### Creative Micro Designs, Incorporated. (CMD)

15 Benton Drive  
P.O. Box 646  
East Longmeadow,  
MA 01028-0646  
Tel: 0011-1-413-525-002  
Fax: 0011-1-413-525-0147  
email:  
cmd-doug@genie.geis.com  
CMD Hard Drives,  
Floppy Drives, GEOS  
Software, JiffyDOS,  
RAMLink,  
Games, SID Symphony,  
IEEE Flash!, Printer  
Adaptors, Books,  
Productivity, MIDI SW.

**Software Support**  
**International**  
2700 N.E. Andresen Rd  
Suite A-10  
Vancouver, WA 98661  
Tel: 0011-1-360-695-1393  
or: 0011-1-360-695-9648  
Fax: 0011-1-360-695-0059  
1750 Clone,  
Miscellaneous Software  
and Hardware.

**Software Hut**  
Folcroft East Business  
Park  
313 Henderson Drive  
Sharon Hill, PA 19079  
Tel: 0011-1-610-586-5701  
Support: 0011-1-610-586-5704  
Fax: 0011-1-610-586-5706  
Miscellaneous Software  
and Hardware.

**Aprotek**  
9323 West Evans Creek  
Road  
Rogue River, OR 97537  
Tel: 0011-1-503-582-2120  
BBS: 0011-1-503-582-1225

**Hatronics**  
195 Lincoln Avenue  
Montclair, NJ 07042  
Tel: 0011-1-201-783-7264  
Mark Hatten  
Manufacture the HART  
UART cartridge.

## Term Program Chart

Term	Mode		40/80 Columns		Emulations				Flow Control	
	64	128	40	80	ANSI	VTxx	C=G	ASCII	Xon Xoff	RTS/CTS
Novaterm	S	x	x	x	x	x	x	x	x	x
Fritzterm	S	x	x					x	x	
ACETerm	F	x	x	x		x				x
Desterm	S		x	x	x	x	x	x	x	
Dialogue	C		x	x	x	x	x	x	x	x
Bobsterm										
Pro 128	*	x		x		x	x	x	x	
Pro 64	C	x	x				x	x	x	

S = Shareware

F = Freeware

c = Commercial

\* = Commercial but no longer sold

Note: Desterm & Dialogue require an 80 column monitor.

## Simple RS232 User Port Interface

Commodore Network or the author/s of this article assume no responsibility whatsoever for any errors or omissions which may occur in the course of publishing this item, or responsibility for any loss or damage resulting from the undertaking of any project or the following of any article published within these pages.

Courtesy of the COMP.SYS.CBM FAQ (Frequently Asked Questions) file:  
Simple Cable Interface.

This type of interface merely converts the nonstandard RS-232 pinout on the Commodore user port to the standard RS-232 pinout and performs voltage level translation as required by RS-232 specifications. This interface can be purchased for \$20 to \$40 new or built by the user.

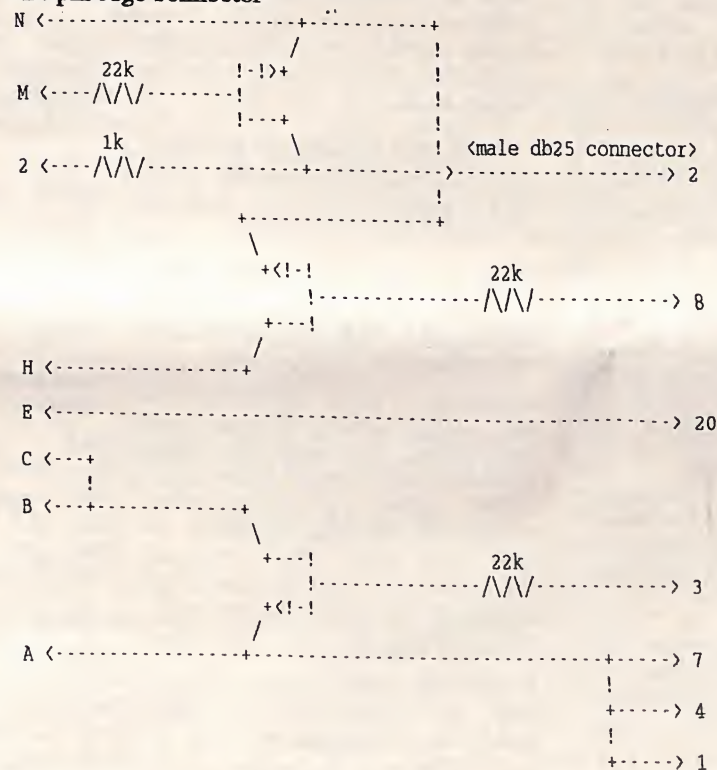
There are a number of homemade interfaces available. The TRANSACTOR published an interface in the Nov 87 issue (V8iss3) and Commodore Hacking Online Magazine published plans for one in issue 4. These are both supposed to emulate the VIC1011A that C= put out many years ago, and you might find one at a computer flea market. RS-232 interface designs were also published within the pages of Commodore Network in the following issues: Dec.'93, Feb.'94, Aug.'94, and June '95

How do I build a simple RS-232 interface cable?

RS-232 interface

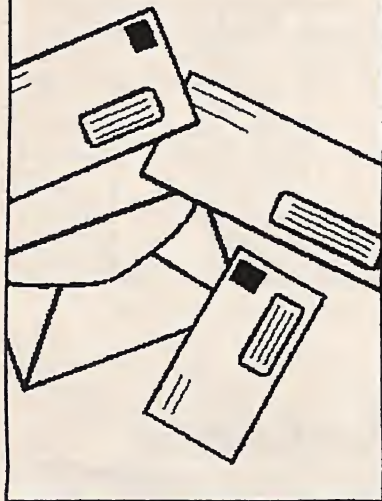
<Transistors are 2n2222>

<24 pin edge connector>



If you are having problems with this circuit as it stands, you may wish to modify it in this way to reverse the clock signal: Disconnect the emitter and collector on the middle transistor of the diagram (the one that goes to the H line on the computer side) Connect the collector to pin 2 on the 24 pin edge connector (the 5v Vcc line), connect the emitter to pin H on the same connector, then connect a 1k ohm resistor to the same pin H and the other end of the resistor to pin N or A.





### RE POINTS IN JULY C.N.:

From our nations capital, and Gordon Wormald writes:

1. I and others in our Club (ACT8CC) are worried about your reporting in "Club Links". To us it is potentially destructive. Some are sure that the reported rumours of a second new club in Canberra are only in the dreams of a disappointed member of the old CUG(ACT). We have picked up a couple of new members from your readership (thank you), but one sought reassurance about the situation before taking the plunge.

Others could be dissuaded from joining if they come to believe that the small amount of Commodore interest remaining in Canberra is likely to be divided. Please check (perhaps a quick phone call?) if anything like this is to be considered in future. I leave it for you to define editorial policy in this area for J.B. Otherwise (it pains me to say) you would no longer be able to regard me as one of your devoted readers. Or, for that matter, writers.

2. RAMLink backup : Your personal interest came over clearly, but is it worth going to the effort of an article in which no-one else is interested? How many RAMLinks are there out there?

As far as the current-sensing unit is concerned : I believe that it would be more appropriate to Electronics Australia or Silicon Chip (and after all, they PAY). A paragraph in CN could cross reference it for those interested?

*I'm afraid that, in answering the first of these questions, I must wear two hats, my "editorial" hat, and that of my personal views.*

*Editorially, I can't see much wrong with John's article. He has reported that a "RUMOUR" of the establishment of a second club exists, but that he CANNOT verify it. Sure, this leaves plenty of room for conjecture, but any new group would surely need to make itself known to be of any concern, and, if this group DOES exist, it must either be a "closed" (not interested in recruiting from outside of its clique) group, or that badly organised at this stage that it doesn't matter.*

*I would hope that no-one would let such a possibility dissuade them from becoming involved with an active club like CUG (ACT).*

*However, if said club DID eventuate, it is C.N.'s policy to support ALL clubs supporting the Commodore 64/128 computers.*

*Personally, I hope that a second club doesn't exist. Division has never been a way to solve problems, and I'd much rather see a united group of Commodore enthusiasts working together to help each other, than separate clubs, each with half the number of members, and half the resources, doing half the job.*

*As for the second part of your letter, it's a pity that you have decided not to publish these articles in C.N. However, I can understand your reasons, and you do have some good points.*

## ADVERTISERS AND COMMODORE WORLD!

From "The Great White North", as our American brethren are wont to call the land of our Canadian cousins, and Bev Harvey in Saskatoon, Saskatchewan writes:

I have been an active supporter of Commodore since '83 - I particularly wanted to keep my mind active on retiring - and using the computer seemed to me anyway, as a good pastime.. I have seen them all come and go, mostly owing their subscribers money, and I sometimes wonder if every crook in the USA and Canada owns a Commodore and has access to a mailing list. I sent over \$200 in response to ads in Commodore World's December issue to:

Page Art

8 Bit

dieHard

Maurice Randall (much publicised GEOFAX)

Never got a reply but know the drafts have been cashed as I traced them from the bank.

I personally thought CMD were a reputable firm. When I wrote them I received a letter back stating that they had written across the back page of their magazine "they weren't responsible for their advertisers", however, I noted that succeeding issues still carried the offending ads.

*In CMD's defence, it is VERY difficult to verify an advertisers intent! All anyone can do is take their money and run the ad. Of those items you listed above, here's the run-down:*

*Page-art - looks to have disappeared (with everyone's money!)*

*8-Bit - If this is the P.D. firm, I am a little surprised. I've dealt with them a number of times in years past, and though a little slow at times, they were reliable suppliers. May pay to give them another prod!*

*dieHard - I think this has been a genuine effort! Unfortunately, they've tried to get too big, too quick, and as a result are well-and-truly behind the eight-ball. We will know one way or the other by the end of September if they are going to be able to resurrect themselves.*



CMD continued to run *dieHard's* ads for some considerable time, not because it was regular advertising money, but because they were trying to help someone (Brian Crosthwaite - *dieHard's* editor/publisher) get his house back in order. In the end (and this is only conjecture), they finally had to drop this support because of complaints and lack of visible progress with the magazine.

Whether these decisions were right or wrong, well, only time will tell, but I kinda like CMD a whole lot more for trying to help!

GeoFax - this was shipped mid-August. If you haven't received it, contact Maurice Randall! The hold up was due to several bug-fixes being required before it was to a standard that Maurice felt could be shipped.

One thing that I DO feel CMD could have done was to be a little more forthcoming with information than they were when you wrote expressing your concerns. I'm sure they could have quite easily passed on much of the information outlined above and more if they so chose. I thought the response you reported was a little heartless, and if they had spent just a little extra time finding out a few things, it could have been wonderful P.R. for them!

Nevertheless, in ending, don't write off CMD. They are a great bunch of people and do wonderful work for and on behalf of the Commodore community. I've had my moments when I've felt like throwing in the towel and not dealing with them, and I dare say that the reverse has been true too, but that's life! They are not perfect, but who amongst us is? I certainly wouldn't like to count the times when I've let someone down, or fallen a little (or a lot) short of the mark due to the sheer magnitude of work I have to deal with on occasion.

## MONITOR MADNESS

Back home, and Vic Majury writes:

Thanks for the information on connecting an Amiga monitor to my 128D. I can now use the computer again, but not without some inconveniences.

The two programs I use most in 80 column mode are Superbase and

GEOS. I now have access to both programs. Hooray!

I made up the cable according to the schematic you supplied. It also made sense of the pinout diagram in the manual for the monitor. I have checked and rechecked the wiring of the lead and verified that the wiring is correct according to your diagram. The problems that I have now are:

1) To get the 80 column screen, I have to unplug the output from the video socket on the 128D. If I don't, the screen just rolls uncontrollably. This is not much of a problem with Superbase, as I just leave the lead unplugged.

With GEOS it's not so simple. As you know, GEOS often requires screen changes such as when looking through C.N.'s Disk-Coverer GEOS disks. When a screen change is required, I have to plug in the video socket and unplug the RGB. This is not a recommended practice, and obviously risky. As a result, I tend not to use GEOS at the present.

2) The second problem I have is that the colours are not correct in the 80 column mode. the start up is now light blue on green instead of black.

Superbase colours are mixed up and show a green background with green on white at the top. the message to insert a data disk and press return does not show, no doubt due to it being printed in green on green instead of black. I had to change the colours on the data disks before I could read them easily.

I was wondering if the red and green leads could be reversed to correct this problem. Is there any chance of damage to the monitor if I change them around?

Yowch! This is W A Y out of my league! Can anyone offer some help here?

## TWIN CITIES

Vic goes on to write:

A couple of further matters if I may bother you further. Did I see somewhere that Twin Cities is producing a disk magazine? or, alternately, do you know whether John Brown has published anything past issue #35? He still owes me a

few!

I have heard that a number of people in the States are supposed to have received an issue recently, but haven't been able to verify this. As for a disk magazine, no, I haven't heard anything along the lines of, Parsec producing one. Once again, can anyone throw some light on this for us?

## CITIZEN GSX-220 DRIVERS

And further into Vic's letter, with:

Also, I recently bought a Citizen GSX-220 colour printer. I have drivers that will operate it in black but not colour. With TC-128/64's last issue there was a disk #35 which had a program for a 24 pin colour printer driver for Epson (which is one of the emulation modes for the Citizen).

I have been unable to load it to run with any program although I suspect it's supposed to run with GEOS. It would be nice to have. Do you know of any suitable print driver programs that are available?

The P.D. printer drivers you sent me were indeed designed to run with GEOS. The reason you had trouble using them is that they are in a form often used by BBS's to store and distribute them. they needed to be "converted" before use to a form accessible to GEOS. I've done that for you, and sent the GEOS-ready versions back.

For those interested, in order to convert GEOS files back to GEOS-ready applications you use a program called "Convert" from within GEOS. There are several versions, the latest (to my knowledge) being v3.0. I've had some little trouble with this version, so tend to use the earlier tried and true version 2.5.

## 1571 DRIVE SPEED

And lastly, Vic asks:

My last request is, do you know how to change the disk speed on the 1571 drive. I have two of these and according to Trilogic's Drive doctor, both drives are running slow. One reads and writes OK, but the other is unreliable.

The diagram in the instruction booklet only shows the location of the adjusting screw for the 1541,



and neither of the two 1571's bear any resemblance. The 1571 drives appear to come from two different manufacturers as they are constructed slightly differently. However, on neither was I able to locate anything resembling an adjustment for the speed.

*I have two 1571's (three if you count the 128D), so I pulled one to pieces to see if I could locate a drive-speed adjustment screw of some sort. No potato! Can anyone help here?*

## AMERICAN HELP

And back overseas where James R. Cottrill of Pittsburgh, U.S.A. writes:

I have a C64 program I bought sometime in 1986/87 from V.G. Data Shack in Brossard, Quebec, Canada. It has served me well all these years. However, I have never been able to back it up, and so I am looking for another copy if anyone has one other than me.

It is called V.G. Data Shack Parallel Copier, Superfast File Backup, and Utilities, Version 1.0

- \* Uses one or two 1541 drives
- \* copies files: copies 36 blocks (9k) per second)
- \* Modifies directories and adds separators.
- \* Renames files, disks, and ID's
- \* Swaps, deletes, and transfers files
- \* Disk analysis - verifies entire diskette.
- \* Validates files with accuracy
- \* Formats an entire diskette in ten seconds
- \* Split screen directory viewing PLUS 15 second backup.

I have written to the address of the company but they are no longer in the Commodore business, and can't be bothered.

I have also tried locating the author, Charles Le Borgne, with no success.

Can anyone help me?

*Sounds an interesting piece of software, Jim, but unfortunately I can't help. Is there anyone out there who can? If so the address to write to is:*

James R. Cottrill  
3119 Pioneer Ave.  
Pittsburgh  
Pennsylvania  
15226-1740  
U.S.A.

*Or, if you prefer, you can phone him on 0011-1-412-563-2379. U.S. residents can drop the leading 0011-1 as that is the international dialling code for the U.S.*

## CARE WITH ELECTRICITY

Vic Mobbs, now of Victoria, writes:

Today was an exceptional day. It started out OK, but then something happened. I smelt smoke! I quickly got up and ran to the heater's switch. Turn that off just in case, I thought! running back into my small office, I was confronted by a wall of flame and toxic black smoke emanating from a tidy basket. I quickly smothered the flame and got rid of the smoke only to discover the extension cord plug had overheated, caught fire, and would soon have consumed ALL within my little wooden cottage if I had in fact not noticed what was happening as soon as I did.

On checking further, it was soon evident that this old wooden cottage, although only recently re-wired, did not have a single earth-leakage circuit breaker. The consequences could have been disastrous, even fatal. Fortunately, I was one of the lucky ones who each year survive to tell the tale of a lucky escape.

Earth-leakage circuit breakers, like smoke detectors, should be fitted to all at-risk outlets (most of them). They can not only prevent costly fires, but save LIVES as well. Have a look for these in your meter box. If you cannot see them, consult an electrician. The LIFE you SAVE may be your OWN or that of your

## CHILDREN.

As far as computers are concerned, they should be on a separate circuit away from your other household appliances. I remember one office where we always lost our programs when the tea-lady over-boiled the electric jug!

My point is that it may be an idea to get an electrician to write an article on the installation and use of such items, and perhaps even on circuit boards, etcetera, with the computer.

*Good idea, Vic. I'll see if we can con, err, I mean talk someone in to writing such an article*

## MODEM QUERY

Vic goes on to write:

With one of the C128's I have acquired a modem, a TAIHAHO, and a modem interface model TH002-1, which has a phone as well as data line. Unfortunately I have no instructions nor do I have the disk that came with the unit. Could anyone help me get on-line.

*I can supply you with a terminal program, but, not knowing anything about this particular beastie, I can't help you much more than that! It may have a baud rate printed somewhere on it, perhaps in a specifications panel. If it does not support a MINIMUM 2400 baud, I would suggest that, nowadays, it is of very limited use to you. Most Bulletin Boards currently operating will not support these lower speeds.*

*In the case of the modem being too slow for practical use, I would suggest picking up as fast a modem as you can afford. Bear in mind that you may also need to purchase a Swift-Link in order to properly use a higher speed modem. Keep an eye on Gaelyne Moranec's "Surfing the Nets" column in this and future issues.*



## FOR SALE

COMMODORE 64 (slimline) with 1541-ii disk drive, 1201 monitor, 9pin dot matrix printer, AVTEK Fax/Modem, "Freeze Machine" fastload / backup /reset cart, RS-232 cart, around 100 double sided disks of 64 software, heaps of docs including the first 3 years issues of CN, programmers manuals, bound C= hacking mags, speech synthesis plug in, many original software titles on disk and cassette, joypad, all cables and power bricks,...  
...much, MUCH more!

\$400 ono

CONTACT:

David Wolfe

Lower Plenty

(03)9432-8407

## FOR SALE

GEOS 128 (complete & boxed) ..... \$25.00  
 GEOS 64 V2.0.....\$25.00  
 GeoCalc 64.....\$15.00  
 GeoPublish 64.....\$25.00  
 Jane 128 (40 cols.) boxed..\$10.00  
 Font Master II 128 (boxed & complete) .....\$25.00  
 Warp Speed 64/128 (cartridge) ..... \$30.00  
 Expert V4.1R cartridge (complete) .....\$30.00  
 C64 Programmer's Reference Guide .....\$20.00  
 SuperBase: the Book.....\$10.00  
 Trivial Pursuit (Baby boomer edition.).....\$10.00  
 Jordan vs Bird.....\$10.00  
 Teenage Mutant Ninja Turtles ..... \$10.00  
 Supremacy (Space strategy-simulation).....\$20.00  
 Sim City.....\$20.00  
 Pool of Radiance.....\$20.00  
 Cave Ugh-lympics.....\$10.00  
 Word Writer 4.....\$15.00  
 Super Expander Cartridge.\$10.00  
 Partner 64.....\$15.00  
 All software is original and have manuals.  
 Payment COD includes postage  
 CONTACT:  
 Eddy on (0848) 33165

## FOR SALE

REU UPGRADE - done by Lance Bosanquet from McGrath's Hill. The REU will run under GateWay (without Switcher). It registers 952k on RAMdisk.....\$300.00  
 GateWay 128.....\$25.00  
 Battery backup.....\$130.00  
 KeyDOS .....\$30.00  
 128 News Maker .....\$30.00

Your Classified ads section.

Free to Commodore Network Subscribers.

Cost to Non-subscribers is \$2.00 per ad lodged.

These ads run for a maximum of three issues.

128 Sketch Pad.....\$30.00  
 128 Spectrum (paint programs).... \$30.00  
 The three programs above are suitable for use within the REU.  
 128 Illustrator.....\$20.00  
 Note: 128 Illustrator is unsuitable for use with the REU.  
 CONTACT  
 Gwen Lohman  
 130 Crooked Lane  
 North Richmond N.S.W. 2754  
 Ph (045) 711 762

## FOR SALE

SIMON'S BASIC (cartridge and manual), original box, as new..... \$25.00  
 EPYX FAST LOAD (cartridge and docs) in original box, as new. .... \$30.00  
 XETEC GRAPHIC PRINTER INTERFACE - with instruction book.....\$25.00  
 CONTACT  
 Ron Daniels  
 2/1 Dennis Place  
 Victor Harbor S.A. 5211  
 Ph: (085) 52 3372

## FOR SALE

One 128C computer - with users guide  
 One 1901 Colour Monitor  
 One 1571 disk drive - with book and cover  
 One MPS-1200 printer - with book and cover.  
 Print Shop 128 - with documentation  
 Print Master 128 - with documentation  
 Font Master 128 - with documentation  
 SuperBase 128 - with documentation  
 Pocket Writer 128  
 Pocket Planner  
 Pocket Filer 2 128



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# Bits and Pieces



### Editor's Note:

It's good to have our once regular column "Bits & Pieces" and its writer, Kevin Power back with us after an extended period of absence. Welcome back Kevin!

Hullo programmers.

Greetings from the Gold Coast where we have another cold winters day of 25 degrees centigrade (75 degrees Fahrenheit for our North American readers).

One of the many good things about the 64 is the very many ways to put text on the screen. Even if it is only for your own benefit and to make things look smarter when your program flashes on.

Have a look at the following routines. They are all small and because they are in basic they are easily changed and used with your programs. Some may seem complex but if you trace through them you will see the places to experiment with. All text between quotation marks is treated by the computer as a string.

Notice that if the text (string) has been subscripted to a variable (a\$ = "text" - m\$ = "text" ), then only a\$ is needed when comands are given.  
 \*\* LEN (A\$) will return the number of characters (including

## Kevin Power

spaces and other symbols) in the string A\$.

## LETTER FADER

```
1 PRINT CHR$(147): POKE
53281, 0
6 PRINT "(9 csr/down)"
8 A$ = "THE FADER ROUTINE":
GOSUB 22
9 A$ = "L O O K S": GOSUB 22
10 A$ = "Q U I T E": GOSUB 22
11 A$ = "G O O D": GOSUB 22
20 PRINT CHR$(5): END
21 rem FADER ROUTINE
22 FOR X = 1 to 40: NEXT: CLS
= "(black blue light-blue
light-green cyan white)": TB =
(40 - (LEN(A$)))/2
23 FOR X = 1 to 6: C$ = MID$(
CLS, X, 1): PRINT TAB(TB);
C$; A$; "(csr/up)": NEXT
24 FOR X = 1 to 2000: NEXT
25 FOR x = 6 to 1 step - 1: C$
= MID$(CLS, X, 1): PRINT
TAB(TB); C$; A$; "(csr/up)":
NEXT
26 FOR P = 1 to 500: NEXT:
RETURN
** LEFT$(A$, n) - Returns a
string containing the LEFT most
number of characters, where n is
equal to the desired number of
characters, of A$.
```

## TELE TYPE TEXT

```
43 PRINT CHR$(147); CHR$(5):
POKE 53281, 0
46 A$ = "(A DIFFERENT WAY TO
PRINT YOUR MESSAGE ON THE 64":
```



```
GOSUB49: END
49 FOR I = 1 TO LEN (A$): AS
= ASC (MID$ (A$, I, 1)): AS =
AS * AS: PRINT "(rev/on
1space rev/off"; : FOR T = 1
to 20: NEXT T
50 PRINT MID$ (A$, I, 1); :
NEXT I : FOR T = 1 to 50:
NEXT T: PRINT: RETURN
** ASC (M$) - Will return the
ASCII code of the first character of
M$.
```

## FAST BASIC SCROLL

```
53 PRINT CHR$ (147); CHR$
(5): POKE53281, 0
56 A$ = "THIS REALLY PUTS IT
ON THE SCREEN FAST"
57 L = LEN (A$)
58 FOR I = 1 to L
59 PRINT RIGHT$ (A$, I) ;
"(csr/up)"
60 NEXT: END
** MID$ (A$,n1,n2) - This will
return a string of
characters/numbers in A$
contained in the first number to the
second number.
```

## LETTER DROPPER

```
89 POKE 53281, 0: PRINT CHR$
(147); CHR$ (5)
92 A$ = "----- ANOTHER
COMMODORE INTRO ----"
93 DD = 4 : L = LEN (A$) : RM
= (40 - L) / 2 - 1
94 FOR J = 1 to L : AS = ASC
(MID$ (A$, J, 1)) : AS = AS *
AS * 2 : M1$ = MID$ (A$, J,
1): PRINT "(home)"
95 IF M1$ <> "(2 spaces)"
THEN FOR K = 1 to DD - 2 :
PRINT TAB (RM + J) M1$
"(csr/up)"
96 PRINT TAB (RM + J)
"(1space)": NEXT: PRINT TAB
(RM + J) M1$: NEXT: PRINT
97 END
** RIGHT$ (M$, n) - Returns the
rightmost number of characters (as
stipulated by the value assigned to
n) in M$.
```

## PLACE CHAR

```
100 PRINT CHR$ (147):
POKE53281, 0
103 PRINT "(7 down cyan)"
105 A$ = "A GOOD PLACE CHAR":
GOSUB108
107 END
108 L = LEN (A$): RM = (35-L)
/2 - 1: REM RM = POSITION OF
TEXT FROM LEFT EDGE
109 FOR X = L to 1 STEP - 1:
AS = ASC (MID$ (A$, X, 1)):
AS = AS * AS * 3: M1$ = "(2
spc)" + MID$ (A$, X, 1)
110 IF M1$ <> "(2spc)" THEN
FOR K = 1 TO X: PRINT TAB (RM
+ K - 1) M1$ "(csr/up)":
NEXT: NEXT: PRINT: RETURN
** Did you know that SYS 58726
will HOME the cursor?.
```

## EXPANDING TEXT

```
114 POKE 53281, 0: PRINT CHR$
(147); CHR$ (5)
118 M$ = "----EXPANDING
```

```
MESSAGES----": GOSUB124
123 END
124 L1 = LEN (M$) : L2 = INT
(L1/2)
125 FOR T = 1 to L2
126 PRINT CHR$ (145); TAB (20
- T); LEFT$ (M$, T); RIGHT$
(M$, L1 - (L2 * 2) + T)
127 NEXT T: RETURN
** If you POKEd 774, 0 you can
only list the line numbers of a
program.
POKE 774,26 to turn it off.
```

## JUMPING TEXT

```
145 PRINT CHR$ (142); CHR$
(14); CHR$ (158) :POKE 53281,
0: A$ = "(1spc)"; X = 0
146 N$ (0) = "*****"
TEXT.....TRICKS *****: REM
MUST BE 26 CHARACTERS
147 N$ (1) = "FROM ALL OVER
THE WORLD.*"
149 A = 1 : B = 26: C = 32: D
= 1: E = 0: F = 0: G = 0: H =
0: I = 0: J = 0: K = C: L =
C: M = C: N = C: P = 41: R =
39
150 IF A > B THEN 160: GOTO
161
151 G = 1263 + E: H = 1304 -
F: I = 1903 + E: J = 1944 -
F: N1$ = MID$ (N$ (X), A, D):
N2$ = MID$ (N$ (X), B, D)
152 IF N1$ = A$ THEN A = A +
D: E = E + D: GOTO 150
153 IF N2$ = A$ THEN B = B -
D: F = F + D: GOTO 150
154 POKE G, K: G = G + P: K =
PEEK (G): POKE G, ASC (N1$)
155 POKE H, L: H = H + R: L =
PEEK (H): POKE H, ASC (N2$)
156 POKE I, M: I = I - R: M =
PEEK (I): POKE I, ASC (N1$)
157 POKE J, N: J = J - P: N =
PEEK (J): POKE J, ASC (N2$)
158 IF G > I THEN A = A +
D: B = B - D: E = E + D: F =
F + D: K = C: L = C: M = C: N
= C: GOTO 150
159 GOTO 154
160 FOR S = 0 TO 2: SYS
59626: NEXT: X = X + 1: IF N$
(X) <> "" THEN 149
161 END
```

\*\* Did you know that SYS 58692 will clear your screen and HOME the cursor?.

## BOUNCING TEXT

```
164 POKE 53281, 0: PRINT CHR$
(147)
167 T$ = "THE NAME OF THE
GAME GOES HERE"
168 DEF FNT (X) = (40 - LEN
(T$)) / 2
169 Y = 23: X1 = 1: X2 = 23:
POKE 214, Y: PRINT: PRINT TAB
(FNT(.)) T$
172 FOR I = X2 to X1 STEP -
1: PRINT CHR$ (147): POKE
214, I: PRINT: PRINT TAB
(FNT(.)) T$
173 FOR P = 1 to 2: NEXT:
POKE 646, INT (RND (1) * (16
- 2) + 2): NEXT: X2 = X2 - 1
174 IF X2 = 12 THEN 168
175 FOR I = X1 TO X2: PRINT
CHR$ (147): POKE 214, I:
PRINT: PRINT TAB (FNT(.)) T$
176 FOR P = 1 TO 2: NEXT:
POKE 646, INT (RND (1) * (16
```

```
- 2) + 2): NEXT: X1 = X1 + 1
178 GOTO 172
```

\*\* Did you know that SYS 59626 will scroll one line in a program?

## RAINING

```
180 PRINT CHR$ (147); CHR
(158): POKE53281, 0
183 M$ = "ITS RAINING
CHARACTERS"
184 GOSUB 185: PRINT: FOR T =
1 TO 3000: NEXT: GOTO 200
185 REM LETTERS DROP FROM THE
SKY
186 TD = 12: REM SCREEN LINE
TO PRINT ON
187 L = LEN (M$): TA = (40 -
L) / 2 - 1: FOR J = 1 to L:
M1$ = MID$ (M$, J, 1): PRINT
"(home)"
188 IF M1$ = " " THEN 190
189 FOR K = 1 TO TD - 2:
PRINT TAB (TA + J) M1$
"(csr/up)": PRINT TAB (TA +
J) "(spc)": NEXT
190 PRINT TAB (TA + J) M1$:
NEXT
191 END
** SYS 59516 will move the
cursor down one line. Handy in
programming.
```

## COLOUR ROTATER

```
201 PRINT CHR$ (147):
POKE53281, 0
204 X = 1
205 A$ = "COME ON AUSSIE----
COME ON"
206 L = LEN (A$)
207 FOR C = 1 TO L
208 POKE 646, C + X
209 PRINT "(home 10down)" TAB
(C) MID$ (A$, C, 1);
210 NEXT
211 X = X + 1
212 GOTO 207
```

Lets finish off with some HIGH RESOLUTION GRAPHICS. Always seems a bit complicated when you look at a program, so lets start at the beginning and work our way up.

On a HIRES screen we have 64000 pixels laid out as 200 rows with 320 pixels in each row. You have the ability to control every one. The operators AND/OR are use extensively.

AND puts a ONE bit in the result in every bit position where there is a ONE bit in BOTH of the numbers compared.

OR puts a ONE bit in the result in every position where there is a ONE bit in EITHER of the two numbers being compared (If you have ever drawn a sprite you have already turned pixels on with a ONE, and off with a ZERO.).

If we divide our 64000 bits by 8 (bits in a byte) we have 8000 bytes to fit in our basic area. So that it will not interfere with our program, we will move the start of BASIC. Type this in direct mode:-



poke 52, 48 : poke 56, 48 : CLR  
(as typed)

What we will do is create a series of subroutines each month so that the program can do all the calculations for you. But first we have to turn on the bit map and clear it:-

### SUBROUTINE 1

```
10 gosub 100
20 col = 18 : gosub 200
30 end
100 poke 53272, peek (53272)
or 8
110 poke 53265, peek (53265)
or 32 : rem turn on bit map
120 return
200 for mem = 8192 to 16191
: rem (8000 bytes)
210 poke mem, 0 : next mem
220 for mem = 1024 to 2023 :
rem whole screen filled with
zero's
230 poke mem, col : next mem
240 return
```

### BE SURE TO SAVE BEFORE RUNNING

First you will see the screen turn to garbage then if you watch closely, you will see the bits are being cleared. Then the bitmap screen will fill with the colour. A RUN/STOP RESTORE will return your BASIC screen, but if you have made an error in typing, the error message will not be on the screen:

To turn off the bitmap and return the screen without loss of data you will have to blindly poke the commands to the screen that turns the bitmap off. The commands are rather long and if you can only see coloured blocks its easy to make mistakes. So we will add this to the top of the routine:-

```
1 GOTO 10
2 POKE 53272, PEEK (53272)
and 247
3 POKE 53265, PEEK (53265)
and 223 : END
```

Now, if nothing is happening after you run your routine, just type RUN 2, (blindly) and your screen will return to a basic screen with any data that was there before and any error messages.

The whole process of clearing a bitmap screen in basic is very slow isn't it. Next month we will have a small M/L routine that will do it in a blink of an eye.

Happy Programming.

128

## THE UNDERRATED RESET!

One of the most underrated and taken for granted features of the 128 is the reset switch! Most of us know that, in order to quickly exit a program and "clear" memory, all we need ever do is to depress it. If we want C-64 mode, we'll hold the Commodore key down at the same time, and if we require CP/M mode, we'll make sure a CP/M boot disk is in the drive before we press the reset. Pretty handy, huh?

Well, there's far more to the power of the reset than just this, so let's take a closer look.

### WHAT THE RESET SWITCH DOES!

Reset activates those routines that set the computers memory to its power-up values. In doing so, it disables any M.L. programs currently in memory. Contrary to what appears to be popular mythology, the reset switch DOES NOT clear memory. For that we will need to turn our computer OFF! Reset instead will only clear a part of memory and perform the following functions:

- remove your machine from any lock-ups
- reset all peripherals on the serial bus.
- restore all the memory locations below BASIC to their default values.
- clear the cassette buffer
- reset the function keys
- restore power-up values to all memory mapped I/O (Input/Output)

locations. This affects such things as screen colours, the SID, etc.

g) reset pointers to BASIC programs

h) place zeros into the three lowest positions of BASIC's user area.

Have you noticed? Only the cassette buffer and the area below BASIC have their memory cleared! This is because our reset switch generally only replaces certain memory location values with DEFAULT values when it is activated. When put into practice, this means that any BASIC program, or any Machine Language program residing in the BASIC area, for that matter, will still be present within your computer's memory after a reset. An area which will also remain untouched is that between 49152 and 53247. The contents of these areas are just hidden in memory since the reset has re-written the associated program pointers, and therefore our computer doesn't know where to look for anything contained therein!

Some of you may have also noticed that the 128's hi-res screen is also preserved after a reset. That is because the reset only overwrites the first three bytes with a 0 and invokes GRAPHIC 0 mode.

### MODIFYING RESET'S RESPONSE

Of course, we are all aware that holding down the Commodore key will invoke C-64 mode. Doing this WILL destroy any 128 program currently in memory. It will also ensure that any 1571 connected will



act as a 1541 from now on.

Programmers will also be aware that, by depressing the <RUN/STOP> key whilst resetting you will call the M.L. Monitor into action. BASIC will not be initialised.

Many of you, however, may be a little surprised to find that this also works in 64 mode, although 'X' to exit does not work for some reason. You will need to reset to escape the monitor. Use in 64 mode is not 100% useful although most of the basic functions such as examining memory locations and the saving of blocks of memory are available.

However, there are other ways of modifying the results you get after a reset. For instance, if you find that you are doing most of your work in 64 mode it is quite easy to ensure that 64 mode will automatically appear at the touch of the reset button WITHOUT you even needing to look at the Commodore key. This is done by changing the operating system vector that determines our computer's default mode with this one liner:

```
BANK 1: POKE 65528, 77: POKE
65529, 255: SYS 65357
```

Once this is executed, pressing reset will automatically bring you out into 64 mode. The only way to disable this is to turn your computer off!

What about the monitor I hear you say! What if I want access to it on reset? Well, here is a short routine:

```
10 BANK 1
20 POKE X ("FFF8"), 0
30 POKE X ("FFF9"), 19
40 FOR I = X ("1300") TO X
  ("1305")
50 READ A: POKE I, A: NEXT
60 DATA 32, 132, 255
70 DATA 76, 0, 176
```

This will restore the I/O by calling IOINIT at \$FF84 (data in line 60), and then jumps into the monitor (data in line 70).

All very interesting, I'm sure, but let's take things a step further! How would we go about doing something like reset proofing a program, or installing an un-new facility wherein a BASIC program in memory is recovered. Perhaps even ensuring that a 64 program is "auto-booted" from a reset. Possible? Well, we'll answer all that in another instalment of "Page 128". For now, we are nearing the limit on size for this month, so until then, have fun, and keep on Commodorin'

## A FEW ASSOCIATED HINTS, TIPS, AND TRICKS

### CHANGING DRIVE MODES

If you need to work in 64 mode, but wish to retain the use of your 1571 drive as a 1571, it is best to enter 64 mode by typing GO64 and the responding with a "Y" at the prompt.

### RECOVERING FROM A 128 MODE LOCK-UP

Holding down the <RUN/STOP> key whilst invoking a reset will put you in to the M.L. Monitor. Now all you need do is type 'X' to exit and your program should be still in memory. Type LIST to look at it, or RUN to have another go!

### PRINTING FROM THE MONITOR

- In direct mode, type: OPEN 4,4: CMD 4
- now enter the M.L. Monitor.
- type in the command, the response to which you want printed out!
- to abort, type 'X' <RETURN>
- in direct mode once more, type: PRINT #4: CLOSE 4.

### RE-BOOTING CP/M

Save a bit of ware and tear on your reset switch.

If you are wanting to re-boot CP/M (from within CP/M in such cases as a lockup) hold down the <CONTROL> key whilst pressing the <ENTER> key on your numeric key pad. Note, this is NOT the <RETURN> key on the main keyboard.

### RESETTING THE DRIVE ONLY!

Here's a routine to allow you to reset a hung-up drive from within your programs.

```
10 A=3072: FOR J = A TO A+43: POKE J, A: X=X+A: NEXT J: PRINT
20 IF X <> 6140 THEN PRINT "DATA ERROR": END
30 PRINT "DATA CHECKED OUT OK . . . .SYS" A "TO RESET YOUR DRIVE":
END
40 DATA 169, 15, 162, , 168, 32, 186, 255, 169, 0, 32, 189
50 DATA 255, 32, 192, 255, 162, 15, 32, 201, 255, 169, 85, 32
60 DATA 210, 255, 169, 59, 32, 210, 255, 169, 13, 32, 210, 255
70 DATA 32, 204, 255, 169, 15, 76, 195, 255
```

If this is to be used from 64 mode, the value of 'A' should be 700.

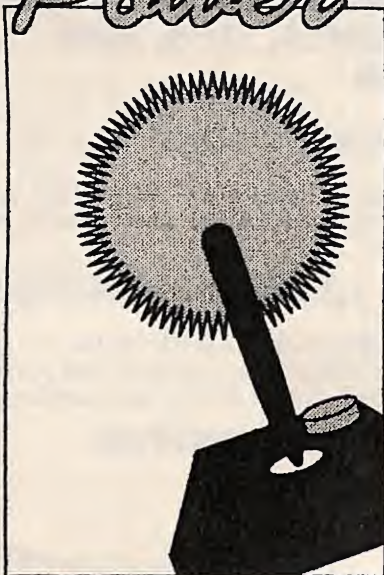
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**NETWORK**  
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Ullo there - welcome to another column for another month, as they seem to say in all the other regular features around here. This column's a bit different though, because unlike all the rest we're into the fun side of life. After all, you didn't buy that Commodore to fritter away the time with silly applications like GEOS, did you? Well, perhaps. But that doesn't matter! Because now that you have it, the temptation to play games is just too strong to resist. And whilst we say that's a good thing, we do appreciate that those games can get a little frustrating as well. That's where this column comes into the picture, because help is at hand. This month we'll be taking a look at how to make the most of Firebird's classic "I Ball" series, "The Sentinel", "The Human Race" (Ed - I could never get past the first screen on this one - no wonder I'm loosing my hair, I pulled it all out playing this!) and the immensely popular Last Ninja duo from the masters at System 3. Not bad for an afternoon's reading, eh? Typing fingers ready? The listings shall follow...

## URIDIUM PLUS

Before all those, however, there's a quickie to kick it all off. Remember a few months back in the review of Andrew Braybrook's works the name Uridium was mentioned? Well, it just so happens that those of you who kept having your star blasters blown away on the first ship of the sequel might be somewhat interested in this little tip

for infinite lives. Sorry, tape only for this one.

```
10 FOR A=49152 TO 49164
20 READ B:POKE A,B:NEXT A
30 SYS 62806:POKE 1013,192
40 DATA 169, 41, 141, 186,
224, 169, 14, 141, 187, 224,
76, 0, 224
```

The usual routine applies - rewind the tape, enter the listing, run it and then press play on the datasette. Simple. Good luck with all the hours of fun that should result from that one.

## I BALL

This nifty little game also had its fair share of fans when it was first released and I'm sure that none of the novelty has worn off. For those diehard I Ballers out there, here's the chance to beat the system and have some fun in the process. For the first of these, facilitated by infinite lives and a few other gadgets, load the game, hit reset and enter POKE 20669,234 POKE 20670,234 (infinite balls) POKE 18133,255 (larger balls - sounds uncomfortable, but probably worth a try) POKE 21916,234 (stops timer) followed by SYS 16939 to restart the game. For the latter, there are a couple of tricks that can be sparked by the following pokes. Just remember that more than a few at a time will confuse the poor computer and make it fall down in a screaming heap, so don't lump them all in first time round.

```
POKE 28620,07
POKE 28621,15
```

```
POKE 28622,01
POKE 28623,20
POKE 28624,15
POKE 28625,09
POKE 28626,04
POKE 28627,00
and SYS 27933 will restart.
```

But wait! There's more! Not the steak knives, but the hint that if you press the keys Z and X on the title screen, speech from the game will be played, and moving the joystick up and down alters the speed.

## I BALL II

But hey, if you thought that was great - you're right. Firebird, however, thought that they could go one better and scrounged around to find a sequel. It reigned supreme for a while... until the lads who did the hard yards in the coding scene combed through it and found that a couple of handy aces up the sleeve could be acquired by loading the game, hitting reset and entering[

```
POKE 38895,165
POKE 34394,234
POKE 34395,234
POKE 34396,234 (infinite
lives)
POKE 46254,165 (smart bombs)
POKE 39422,0 (upward movement)
POKE 34380,169
POKE 34381,0 (invulnerability)
SYS 34050 (to restart the game)
```

Now, I do realise that it was a bit mean to isolate the minorities by publishing the first set of hints for Uridium Plus which could be used by tape owners only. And recently there have been a few complaints from those who don't have reset cartridges. I would be tempted to advise them to beg, borrow or steal one, but just for now I'll be nice. It's hard to please everyone, but if you don't happen to have a reset switch then you can still take advantage of the game by rewinding the tape, entering the following listing, running it and pressing play on the tape.

```
10 FOR A=31722 TO 31735:READ B:C=B:POKE A,B:NEXT
A
20 D=16537
30 READ E:F=E:POKE D,E:D+1:IF E<>99 THEN 30
40 IF C<>2024 OR F<4200 OR F>6945 THEN PRINT "AN
ERROR HAS BEEN FOUND IN THE DATA":END
50 POKE 622,76:POKE 623, 181:POKE 624,64
60 SYS 16537
70 DATA 234,234,234,169,49,141, 159,2,169,234
80 DATA 141,160,2,96,78,41,3,32,212,225,152,32
90 DATA 213,255,120,136,140,21,3,169, 166,141,20
100 DATA 3,169,128,141,237,2,108,20,3,72,169,64
110 DATA 141,179,3,104,76,23,3,169,0,160,169
120 DATA 140,239,151:REM INFINITE TIME
130 DATA 140,174,180:REM SMART BOMBS
140 DATA 141,254,153:REM UPWARD MOVEMENT
150 DATA 141, 77,134,140,76,134,76,191,3,99:REM
INVULNERABLE
```



So there you go. I Ballers unite - the future is yours.

## THE HUMAN RACE

Mastertronic's effort from a few years back, this one was always a favourite of... my cousin's. Sadly, I was never hooked - it seems that people just can't convince me that the human race was a step forward. Personally, I liked us in our froggy state. Some people are saying that we should never have come down from the trees, but then others have stated that even the trees were a mistake... and you all know the rest. For a couple of goodies in the game, rewind the tape, then type in: **POKE 43,200 LOAD** and press play. A syntax error will come up. Don't be alarmed! Enter:

```
POKE 43,1
110 IF F=10 THEN POKE 792,
251:POKE 793,252:GOTO 10
```

Now type **RUN**, and the game will load. Funnily enough, though, it won't run. Yet! When the tape stops moving, the screen will be blank. Hit the run/stop and restore keys together and you will **NOW** be able to enter the pokes.

```
POKE 5023,234
POKE 5024,234 (unlimited
lives)
POKE 3707,(0-4) (change the
title screen music)
POKE 4440,(22-26) (which
screen to start on... 2-6)
POKE 40506,234
POKE 40507,234
POKE 40508,234 (to halt the
dragonfly on the first screen)
POKE 40500,234
POKE 40501,234
POKE 40502,234 (removes both
the cat and the dinosaur on
the first screen)
POKE 16215, 141 (renders the
balls of fire completely
harmless)
POKE 40503,234
POKE 40504,234
POKE 40505,234 (reduces the
bird to a flying hunk of
debris)
POKE 50319,141 (makes you
immune to anything you may
encounter on the fifth screen)
SYS 3700 (to restart the game)
```

Get cracking then - The Human Race awaits.

## THE SENTINEL

Another game to roll off the Firebird production line... I could almost have turned the column into

a testimonial! Straight into the business end of the section - to gain a few advantageous alterations in the game itself, load it up, hit reset, and type in:

```
POKE 6679,173
POKE 8512,10 (for unlimited
lives)
POKE 1212,12
POKE 9462,173 (X-ray
vision, which always comes in
handy with that nasty thing
lurking in the dark somewhere
ahead)
SYS 16128 (to... well, restart
the game, spookily enough).
```

An alternative to this is to enter **POKE 6664,96** followed by the above **SYS** command, which means that the Sentinel is no longer able to drain energy. Of course, for the members of a more daring element in society who think that infinite lives are too easy but still want to increase their chances dramatically, you can spy out the territory ahead and positioning of all the watchful sentries by hitting the landscape number after entering:

```
POKE 4176,234
POKE 4177,234
POKE 4217,76
POKE 4218,114
POKE 4219,53
POKE 12981,0
POKE 13685,76
POKE 13686,23
POKE 13687,16
POKE 34371,96
SYS 16128
```

For those who have even more scruples, these are a sampling of the codes required for the later levels which you may not have reached:

**Level 304 - 46774653 Level 734 - 66919994 Level 1091 - 81759567**  
**Level 1863 - 13090835 Level 3301 - 48423345 Level 3942 - 17556527 Level 4706 - 98972516**  
**Level 5391 - 06895848 Level 6208 - 65592289 Level 6712 - 77956620 Level 7333 - 70647565**  
**Level 8007 - 59442559 Level 9999 - find out yourselves!**

## THE LAST NINJA

Ah, yes. The best is indeed saved until last - The Last Ninja in its various forms rates as one of the most popular trilogies of all time, and it was no mean game either. The thought of a lone figure in black taking on the evil rabble seems to appeal to gamers... maybe it's just the cathartic experience of being out on the streets doing something to the mean little

weasels prowling around. In any case, for infinite lives, try running this listing:

```
5 POKE 649,0
10 FOR A=579 TO 640:READ B:POKE A,B:C=C+B:NEXT
A
20 FOR D=31722 TO 31735:READ E:POKE
D,E:F=F+E:NEXT D:IFF=8876 THEN SYS 579
30 PRINT "AN ERROR HAS BEEN FOUND IN THE
DATA":END
40 DATA 198,157,78,41,3,169,0,162,1,168,32,
186,255,32
50 DATA
189,255,32,213,255,120,136,140,21,3,169,128
60 DATA
141,237,2,238,119,244,238,120,244,169,166,141
70 DATA 20,3,108, 20,3,
162,121,142,178,3,206,179,3,76,81
80 DATA 3,169,197,141,135,120,76, 191,3,
12,0,0,169,49
90 DATA 141,159,2,169,234,141,160,2,96
```

That should take care of most injuries that might be inflicted - upon your Ninja, of course. The huge hits that you dish out still cut as hard as ever...

## THE LAST NINJA II

Naturally, System 3 just couldn't quit whilst they were ahead and thus the sequel was born, an even bigger hit than its older brother. And if the latter version is better, it means an even bigger listing to gain those sought after infinite lives. But is it worth it in the end? Of course! Try running this listing:

```
10 PRINT CHR$(47)
20 FOR A=304 TO 431:READ BS
30 C=ASC(LEFT$(BS,1)):C=C-55:IF
C<55 THEN C=C+7
40 D=ASC(RIGHT$(BS,1)):E=E-
55:IF E<55 THEN E=E+7
50 F=(C*16)+D:G=G+F:POKE
A,F:NEXT A
60 IF G<>14491 THEN PRINT "AN
ERROR HAS BEEN FOUND IN THE
DATA":END
70 SYS 373
80 DATA A9,AD,8D,50,92,A9,3C,8D,5E,17
90 DATA A9, 03,8D,5F,17,A2,24,BD,4F,01
100 DATA 9D,3C,03,CA,10,F7,A2,12, 4C,F3
110 DATA 3F,A5,EC,29,0F,AA,BD,54,03,8D
120 DATA 50, 03,BD,5A,03,8D,51,03,A9,AD
130 DATA 8D,FF,FF,4C,F3,3F,50,52,6C,99
140 DATA BB,0F,92,8F,7C,8A,8B,90,00,20
150 DATA 2C,F7,38,A9, AB,8D,B1,03,A9,8A
160 DATA 8D,B2,03,A9,69,8D,B3,03,20,6C
170 DATA F5,A9,99,8D,40,F2,A9,01,8D,41
180 DATA F2,20,BF,03,60,A9, BF,8D,B2, 03
190 DATA A9,03,8D,B3,03,A9,30,8D,09,14
200 DATA A9,01, 8D,0A,14,4C,64,F1,FF,FF
```

And that - if it's all gone onto the file safely - should be the last of your worries if you're a dihard Ninja.

## AGAIN?



Yes, sadly, it's that time again. Time that I signed off. Everything in the gaming community is going as well as ever, but if there are any individual hassles, the address to contact is:

**The Power Drift**  
PO Box 123  
Walkerville  
SA 5081

In the meantime, enjoy the gaming and keep having fun!

Cheers, Andrew

# Showcase

Warren Naismith



## The Complete Programmer

*Another loaded Loadstar package reviewed!*



**World of Geos Handbook and Disk**  
**World of Geos Handbook II**  
**World of Geos Handbook III**

The HandBooks are available folded and saddle bound to A4 size, for AUD\$15.00 each\* (includes P&H), from

**JMV Grafix**  
**P.O. Box 635**  
**Blair Athol**  
**South**  
**Australia 5084**

Cheques Payable to Jane M. Jones \*Overseas  
Orders add AUD\$5.00

I must admit that I hate doing possible reviews!

Oh! sure, it has its good points, like getting to play around with new hardware and software before anyone else, and, of course, there's also the point that you get to keep most things sent for review, if not for free, then at a discounted price. There's also the fact that I KNOW the job is going to be done before a deadline if I do it, and if it's not, then I've only myself to blame!

But sitting down and actually putting your thoughts on paper (or computer screen in this case) can be a real pain! I seem to suffer from a case of writer's block in perpetuum!

In any case, this isn't getting the job done, so let's put the bit between the teeth, bite the bullet, or whatever other homily springs to mind, and get on with it!

This is a huge collection aimed fairly and squarely at the programmer in you. It is NOT, as one might expect, chock full of programming aids and routines, although there are some excellent programs to help you with creating your programming masterpieces. Instead, it is heavily text based, offering a vast array of files for the owner to read from screen or print out as required. Softdisk Publishing (Loadstar!) have seen to it that an excellent text file reader is present on each disk side so that access to these files is as hassle-free as

The product is not designed to be a totally comprehensive and definitive C64 programming reference work, but has been created in such a way as to offer the end user an insight into, and guidelines to developing programs and programming techniques of their own. To this end the collection seems to "invite" the reader to take a hands-on approach to learning the science of programming.

Techno-talk is kept to a minimum, replaced by good, old-fashioned, straight English.

But, best of all, these disks do not remain bogged in beginner's BASIC, although, most assuredly, there are a number of articles aimed in this direction. They take the user through many stages of programming knowledge, teasing, tempting, yes, even teaching, the novice the weird and wonderful ways of his machine, from BASIC basics to the depths of assembly language programming. I feel that, by tackling a much wider range of programming subjects as is done here, the user is encouraged to "explore" further and to experiment in areas he would not have otherwise attempted to enter for fear of the unknown. And, after all, that fear of the unknown is why most of us don't tempt the fates and delve into the mysteries of the machine!



## PROGRAMS

Yes, there are programs on these disks too! And some excellent ones at that! These cover a whole range of programming utilities from an on-screen, menu-driven help file outlining every BASIC keyword, and all the ASCII and screen codes, but still leaving 38911 bytes free to program in, to a multi-featured menu program. There's even an Assembler and a Compiler.

A number of these programs are demonstrations of the theories and techniques discussed in an accompanying article, and as such these tend to re-enforce what is learnt from that text. The old saying "a picture is worth a thousand words" can be particularly apt in the world of computers.

I must admit that two programs, BASIC 4 (although I'm not a fan of so-called enhanced BASIC's, this sounds an interesting prospect), and Zip BASIC have taken my interest, and I intend to look further into these as time permits.

All in all, there are around 50 programs and routines for you to play with.

## SYNOPSIS

This is just about a MUST for any budding programmer's library, if only for the programs it provides.

"The Complete Programmer" consists of eight disk sides packed with compressed text. The only thing I could fault was that it's a pity it wasn't hardcopy, it would have saved me a lot of printing (yes! I did print it all out!). A top-notch package!

### Available from:

Australia  
JDB Software  
PO Box 244, Warilla  
NSW 2528 \$A25.00  
USA  
Loadstar  
c/- Softdisk Publishing  
PO Box 30008 Shreveport  
LA 71130-0008  
USA \$US20.00

Warren Naismith

## Parallel Computations on Two C64's

Over the many years that I've been the proud owner of a Commodore machine, I have often imagined the uses one would have for an interface between one or more computers. Commodore did, of course, make a system for connecting several of their machines together in order to make more efficient use of peripherals, but this was principally designed for educational use where several computers could draw data from a single drive, or dump to a printer, each in turn. These have long since disappeared from the listings of new software/hardware and can only (on the VERY rare occasion) be picked up second-hand.

But out of Georgia in the U.S.A. comes this offering by Mark Schuette.

## THE PRODUCT

Now, you will have to excuse me a little here. You see, this product doesn't seem to have a product "name". Mark just refers to it as "a cable and software that allows two C-64's to be connected together". It's only a (very) petty gripe, but I would have liked this to have an easy-to-recognise name of its own (something like the "reMARK-cable perhaps?). In any case, whether it has a name or not is immaterial, what we must deal with in this article is the item itself, what it consists of, what it does, and how well it does it! Naturally enough, you'll also get a good helping of my thoughts and ideas on product use

along the way.

The package consists of a cable with connections at either end for plugging in to the C64's (and C128's) user port, two 5.25" disks, and a three page "manual" to help you get started. The two disks are identical, containing the same driver program.

To use the cable, all that's needed is for the user to plug one end into the user port of their first 64 (or 128 in 64 mode), and the second end into the second unit's (once again either a C64 or a 128 in 64 mode) user port. If you intend using a 128, it is worth noting that I had to remove the RGBI plug from the back of my computer in order to insert the cable as the plug housing on my review cable was rather large (extending about 2cm or 3/4" from the port). Both computers will need a drive and monitor connected.

## THE SOFTWARE

As said above, the package comes with two disks, both containing the same software. This software introduces a "wedge" of four new commands to both C64's that simplify the utilisation of the cable, and access to data on either connected computer system from within your programs. Because the new commands are only four in number, they are easily learned and it soon becomes second nature to implement them.

I did like the fact that Mark took the

Review

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time and trouble to install a user-friendly front-end to give the end user the option of placing the wedge in any of three locations within computer memory. These locations can be different on both computers if so desired, or you can have them both operating from the same start address. The choice is yours as the software operates flawlessly regardless!

## WHAT IT DOES!

Perhaps a suitable introduction to this chapter is to quote Mark's words...

"... The reason for the development of this firmware came from the fact that many people have more than one C-64, primarily to ensure that all the software and hardware dedicated to one C-64 will not become unusable in future. However, using only one C-64 at a time is a waste of resources if the other C-64 is idle, and limits the total processing power available. The total processing power of the two computers can be used to implement parallel programming inexpensively."

In other words what we are looking at here is a system that allows two computers to be connected and TO EXCHANGE data as required. Data transfer speeds have been measured at a quite nice 40,000bps (five kilobytes, or the equivalent of approximately 20 disk blocks, a second).

## WHAT'S TO LIKE?

Everything if you are a C64 programmer who can see the myriad of potentialities created with the utilisation of something like this. The applications on the gaming front alone are staggering!

You would no longer have to face an unthinking machine, but can go head to head with your best friend, making moves almost simultaneously. Wargames and role playing games would be ideal for such a format! Moves made in secret would stay in secret until the trap was sprung, or your plans revealed. Stroke and counter-stroke would only become apparent in turn as the game unfolded, leaving you guessing at each occasion whether that move be right or wrong!

And what about stereo music? Two computers, six voices!

But possibly the most intriguing would be the utilisation of the second 64 as extended memory or even as a RAM drive.

## WHAT I DON'T LIKE!

I would really like to see a NAME applied to this! It's too good to go nameless!

Users will need to have some knowledge of programming in order to utilise the firmware effectively.

No software. I would have liked to have seen a few programs included (other than the loader program) that made some use of the cable. I have been working on a small role playing game which, when finished, will be forwarded to Mark for possible inclusion on future program disks. I would have also liked to see a 128 mode driver and, perhaps, a GEOS driver (both of which I intend having a go at!). Both should be possibilities and hopefully will be developed in time.

Unsuitability for use with a 128. Because of the size of the User port interfaces, this system is not ideally

suited for use with a 128. This should not be a major problem if you are not using an 80 column monitor. You MUST use your 128 in 64 mode (hence my wish for a 128 mode driver).

## SYNOPSIS

I would highly recommend this to those of us interested in pushing their machines to the limit. It introduces another facet to C64 computing along with the associated challenges. If, however, you are not into programming, then I honestly feel that this will be of very limited interest to you. This is very definitely not a "must have", it is, however, a very handy acquisition for those who like the added challenge of something of this sort. I love it!

## LAST BIT!

I received this package quite some time back, but, due to a number of problems haven't managed to put a review together before now. My apologies to Mark for the time lapse.

## WHERE DO YOU GET IT!

**Marcus  
Electronics  
P.O. Box 620028  
Doraville  
Georgia  
U.S.A.  
30340**

Sorry, I can't quote a price at the moment.

## Online Support Services

	<b>Sydney</b>	
Way Out West.....		02 628 8888
Space Station.....		047 742 252
	<b>Melbourne</b>	
GeoZ.....		03 9803 6498
Talisman.....		059 444 061
	<b>Adelaide</b>	
Fishbowl.....		08 277 1361
	<b>Brisbane</b>	
Pinnacle.....		07 341 9560



I will attempt to talk you through servicing a Commodore MPS 1230 printer. This is a very common printer nowadays, and is used on our Commodores as well as other types of computers. I cannot tell you how to service every printer that you might have, because there are just too many types of printers available, but this should give you a good backgrounding.

The servicing is as follows :

For starters you will need a few items. A chisel blade screwdriver, Cotton buds on a stick, a soft cloth, a soft paint brush, Isopropyl (Industrial) Alcohol, cassette/disk cleaning fluid, or Methylated spirits, WD-40 spray, and a light oil (Silicon oil or light sewing machine oil).

You start by unplugging the printer and removing the Serial or Parallel lead, take off the paper feed or tractor feed, the roller or platen knob, and anything else that is easily removable that may fall off when you turn the printer upside down. With the printer in front of you, grasp the bottom of the unit using both hands, each hand placed on opposing sides of the printer case, and gently pull the sides of the casing outwards. You will find that the casing will release and the printer's main body will stay on the table. Move the case to the right to allow the knob shaft to clear the casing. Once clear, tilt the casing to the left and then disconnect the ribbon lead for the switches by placing your thumb and finger either side of the connector and gently pulling down till it clicks to release the connectors catch, then just pull the ribbon cable out. You will now have the main body in front of you with plenty of room to work on it.

The next step is to remove the roller or platen. This is done quite easily by turning the printer upside down and, with a small screwdriver, clipping two white tabs situated at both of the rollers ends, inwards. You will hear the tabs release the roller and it will almost fall out, so

## Servicing Your Printer

gently turn the printer over at the same time in order to help support it. Lift the roller off the printers base taking note of where the friction/tractor lever and any other parts are situated, then place it aside. This I have found to be very handy if you have a label stuck underneath the roller, in a couple of minutes it can be removed without too much hassle. There is a cradle sitting loose underneath the roller which can also be removed for cleaning. This should be taken out now also along with the print ribbon cassette.

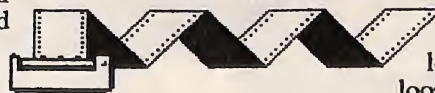
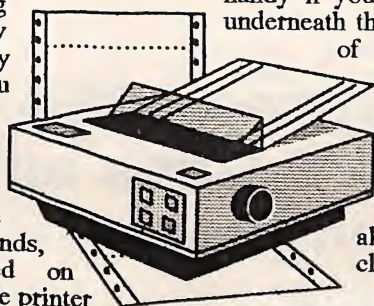
With a soft cloth and some Isopropyl (Industrial) Alcohol (or any of the other alternatives mentioned above), clean the roller thoroughly. We will also need to use a cotton bud dipped in our chosen solvent to clean the print head CAREFULLY. You may have to clean this print head many times in order to remove an excessive build-up of ink, but, as long as you are careful, there should be no problem. I may mention here that some people have trouble with their printers when they attempt to implement underlining. This is caused by the fact that the ninth pin of a nine pin printer is only used for underlining and, through lack of use, it becomes

stuck. So, if this is happening to yours, it needs a thorough cleaning and service. If the end result does not cure it, then I recommend that you get it repaired properly, or, at worst, have the print head replaced.

With a soft brush, clean the dust off the area surrounding the roller, and, using the solvent dampened cloth once more, clean the cradle and the area underneath where it sits. The track where the print head carriage slides along, and the surrounding areas, will need to be cleaned to get rid of any built up grime.

It is not necessary, but the rod along which the print head carriage slides can be removed for a more thorough cleansing. This is done by unscrewing the two Phillips head screws at either end, and turning the metal plates, lifting the rod up, and sliding it out. You will find that there is still tension on the belt that moves the print head carriage. If you find you need to release this tension, you will need to turn the printer over again and unclip the belt tension which is spring loaded. This will loosen the belt and you will find that a small roller will fall out giving you more access underneath in which to clean.

After cleaning all the parts, it now becomes necessary to lubricate appropriate areas. Spray some WD-40 onto a cotton bud and gently wipe over the print head to lubricate the pins, making sure not





to leave any lint or such behind. Do NOT spray WD spray directly into the printer. If you have Silicon oil, oil the rod that the print head carriage slides along. If you don't have any Silicon oil, use some WD-40 applied to a cotton bud, or light sewing machine oil sparingly. With a small amount of Vaseline or oil, lubricate the track at the back of the print head carriage, the gears for the carriage, and the gears for the roller.

Before starting re-assembly, make sure the paper detection LED is clean. This is situated at the Left side, approximately underneath where the roller goes. Replace the cradle, making sure it does not jam or get caught with anything, it should just sit freely and be slightly spring loaded. Now replace the roller, making sure the lock down tabs are facing the right way and the Friction/Tractor lever is positioned correctly, press it down firmly. If you removed the rod and belt assembly, you may find it difficult to replace. The small

roller slips into the end of the metal plate with the belt around it, hold it in place with your fingers, and with the other hand and using a screwdriver, move the plate to the right until the spring loaded catch clips into place and places tension on the belt. The metal rod is slipped through the carriage and then dropped into position, replace the plates and fasten it down. It does not matter where the print head carriage is positioned because the printer automatically resets itself upon switching on.

Reassembly is the reversal of the disassembly procedure. Pay attention to the ribbon cable, and how it is positioned back into its connector. If upon reassembly the LED's on top do not light up when tested, then the cable has been installed the wrong way around, just disconnect and turn the cable connection around.

Now for the different or difficult ones. I have serviced many

different printers ranging from the MPS 801, Panasonic, Riteman C+, an Amstrad 24 pin and many others. All others so far had to be taken apart with screws, with the rollers in some being very difficult, if not almost impossible, to remove and replace. If you are not confident enough to remove the roller then just clean it while it is in the printer. I have not yet serviced a Bubble Jet or Ink Jet so I cannot give you any details on them yet.

If everything is done right then it should run quieter and smoother. I personally recommend that you service your printer at least once every six months, or sooner depending on the amount of use.

Till next time. ....

*Rob Cloosterman*

## If you LIKE Geos on your C64/128, you're going to LOVE Geos on your "other" computer

Geoworks Ensemble  
requires  
286/386/486/Pentium  
PC with 2 Meg RAM  
and 10 Meg Hard Drive  
Space.

GeoPublish is a  
shareware version of  
Ensemble for you to try  
before you buy.

2 Disks      \$16.00

GeoZ BBS Mail Order  
7 Falconer Street  
Glen Waverley Vic  
3150  
Tel: 018-58-15-58

The screenshot shows a Geos desktop with two windows. The left window is titled 'AFFLUCK' and contains a spreadsheet. The right window is titled 'GeoCalc - 1995 Class list' and contains a table with student names. Below the windows is a large advertisement for 'GeigaCounter'.

STUDENT NAME & CLASS	
Year 6	
Daniel Gray	
Daniel Maycock	

**GeigaCounter**  
The Newsletter of the Geos Enthusiasts Interest Group of Australia  
Published by Campbell Computer Services for GEIGA, PO Box 415, NORTH HOBART TAS 7002. Ph: (003) 34 0091  
0235 1303 0390

**GEOS FAX SOFTWARE  
RELEASED**



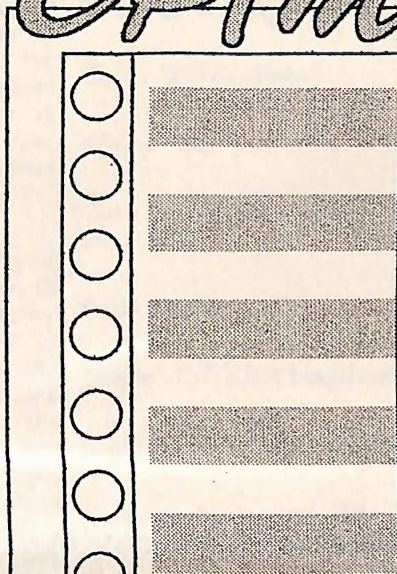
*Alastair Hay*

Using dBase II let us suppose that we want to show a series of records on the screen and allow for some instructions to be stipulated for each - e.g.: to list a set of names in a way which allows you to mark some of them for deletion.

Here is a little program using Macros. We will construct a single DO WHILE loop which locates the next match, stores its record number to a memory variable, and GET's your input. The method used is that each time through the loop the program builds new memory variables for storing the record number and your input. It uses macros to construct these new variables.

```
STORE '10' TO NUMBER
DO WHILE NUMBER <32
STORE STR(VAL(NUMBER)+1,2) TO
NUMBER
STORE 'MEM' + NUMBER TO m
STORE 'NUM' + NUMBER TO n
@ &NUMBER-10, 0 SAY "NAME" GET
&m
STORE# TO &n
CONTINUE
ENDO
READ
STORE '10' TO NUMBER
DO WHILE NUMBER <32
STORE '10' TO NUMBER
DO WHILE NUMBER <32
STORE STR(VAL(NUMBER) + 1,2)
TO NUMBER
STORE 'MEM' + NUMBER TO m
STORE 'NUM' + NUMBER TO n
IF &m = 'd'
GO &n
DELETE
ENDIF
ENDDO
```

Simple? Well it is easier to figure out by studying the examples than for me to try and explain it all. What we are doing with the macros is using two levels of memory variables. When you look at the



"&m", for instance, you are actually calling the variable stored in the variable "m" - which is mem11 the first time through and becomes mem12, mem13, and so on with each pass through the DO WHILE loop.

The reason we started with "10" rather than "1" is that the length of the number has to be constant, so starting with "10" allows you to call up to 90 variables (mem10 to mem99), whereas starting with "1" would allow only 10 (mem0 to mem9). dBase II only permits the use of 64 memory variables anyway so this method gives you more than enough. This program is by way of example only and by itself would of course run fine until it gets to the end of the file, then it would repeat the last record until it fills up the screen.

## dBase II Using Macros Starting with '&'

We will therefore add in a few more lines to stop the program when it hits the end of the file, like this:-

```
IF EOF
STORE 33 TO NUMBER
LOOP
ENDIF
```

Well I hope this gives you some new ideas for programming in dBase II.

Learning that Warren has had good enquiries for his CP/M collection, next time I will give you some ideas for the use of Wordstar, the great CP/M word processor. By the way, I have versions 2.26 and 4 which have been modified for the 128, computer along with my updated version of CP/M which lets me use all the video attributes to show printer codes on the screen of my 1084S colour monitor..

Now from  
JDB Software

THE Disk magazine for C64/128 users

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## JDB Software

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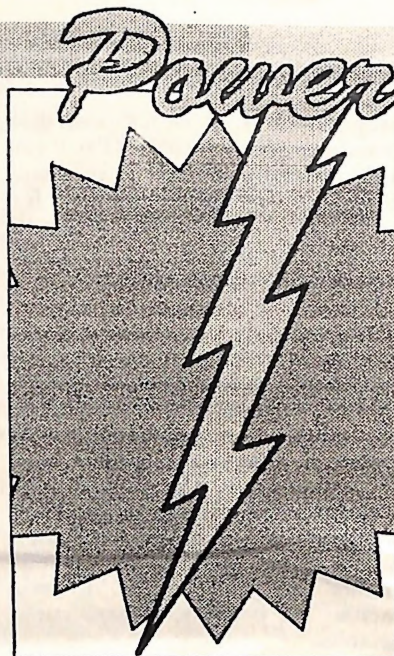
Commodore  
**NETWORK**  
September 1995



Browser is the latest release of Australian C128 programming guru, Rod Gasson, and is "Freeware". It is a text file reader of small size, but BIG power.

Now I know many of you will bemoan the fact (?) that there are already numerous text readers of one form or another available for the 128, but Browser stands out with the sheer size of the files it is capable of handling - a massive SIXTEEN meg or thereabouts! And all this with the versatility and convenience of paging facilities, and the ability to scroll backwards or forwards throughout the text. All without needing access to an REU, although Rod does suggest that a RAMLink could be an advantage.

## Browser 2 - a review!



But Rod hasn't stopped there! He's taken things that bit further by implementing the ability to access and read BASIC program listings, to handle .QWK and .PKT mail packets (from Bulletin Boards, and containing E-mail files), to view ANSI graphic files, to debug ANSI escape sequences, (both BBS oriented), to utilise in its display character sets from just about any Commodore program, and to boot 128 programs directly from within the program.

Other nice touches include screen blanking, full compatibility with just about every drive type used in conjunction with the 128 (and including 1581 and CMD sub-directories), a user-configurable screen size, and an inbuilt DOS-wedge.

Let's look a little deeper.

## THE INS AND OUTS

The first thing that struck me regarding "Browser" was its ability to access so many drive types, and, more importantly, to actually help you make use of those partitions, directories, and sub-directories so important to good and efficient usage of your 1581's, FD's, RAMLinks, and Hard Drives. Heck, it's so easy to get around, it's almost

ridiculous.

Upon loading "Browser", you are presented with a selection from the currently active drives attached to your system. Selecting a 1541/71 or similar will present a listing of files on that disk within the respective drive. Choosing a 1581/FD/RAMLink, or Hard Drive will bring up a listing of directories available, and then on down the chain through sub-directories to the final file selection process. Each directory, as it's displayed, is colour coded for ease of file/partition/directory/sub-directory type recognition, something which I found a very nice touch indeed, simplifying the search for specified files or partitions immensely.

When our files are finally listed in front of us, it is then a simple matter to cursor up/down to the required filename and to press <RETURN> to select it. At this stage we must choose one of the

following options:

<A>SCII - Read an ASCII text file (IBM compatible text, also used by some Commodore wordprocessors).

<P>ETASCII - Read a Commodore native (PETASCII) text file.

A<N>SI - View an ANSI file. These are IBM graphics files most commonly used for the info screens on BBS's and the like! By holding down the <SHIFT> key whilst pressing <N>, you will enter the ANSI "debugging" mode.

<B>ASIC - View that BASIC program listing. All tokenised keywords are colour coded.

<D>AT - Browse through a .DAT file. These are QWK format for use by BBS Offline Mail Readers (Electronic Mail).

P<K>T - Similar to the above, these files, although still designed for Offline Mail reading, are in the standard FidoNet format.

<R>UN - Run the selected 128 mode program (sorry, no 64 mode programs!).

Once you have specified the option required the file is listed to screen a "page" at a time. If you





have made a mistake it's simply a case of pressing <STOP> twice to abort and bring you back to the selection process once more where you can try another alternative. A very handy feature indeed if you, like me, seem to have a penchant for selecting the wrong format.

With the first page of text displayed on-screen, we can now proceed to make our way through the file by using <SPACE> or <RETURN> to move a page at a time, or the <UP/DOWN> cursor key to move downward through the text. By selecting the <UP ARROW> key (right of the <NO SCROLL> key), we can page back to sections of text previously read (or overlooked) a page at a time. You will also have the option of selecting a page to go to (as long as the page selected has already been accessed).

## READING E-MAIL

"Browser's" ability to read electronic mail is one of, of not the most impressive aspects of this little program. It is here that Rod's love for this field of computer pursuit shows through, and he has gone to great lengths to produce a simple, efficient, and probably most important of all to the novice E-mail/Netmail junky, easy-to-use reader. Here once again he has used colour coding to great effect, assigning the following colours to

each portion of a message:

Grey - "Kludgelines"

White - text

Cyan - Quotes from previous messages.

Red - Taglines.

Purple - QWKRR braglines

Light Purple - Origin of message.

These make for attractive and easy-to-read displays of off-line mail.

## CUSTOMISATION

Rod has gone to great lengths to give Browser the ability to conform to your preferences. In doing so he has made all the colour coding accessible and changeable via poke commands, given you the ability to set a pre-defined time of non-action before screen-blanking is implemented (via another poke), and the capability to toggle linefeed display and tabs on/off. This adds a nice touch and allows the visually impaired (such as those suffering from colour blindness or in need of a high-contrast display) an opportunity to make a little better

use of the text-reading abilities of their machine.

## LIKES/DISLIKES

There's not a great deal to dislike about browser. Perhaps the user interface could have been a little more graphically interesting, or the customisation procedure more user friendly, and the versatility and sheer power of the program begs for the ability to "search" through all the currently active drives for a particular filename as entered by the user, but what the hey! This program delivers what it set out to do. So what if it isn't all frilly-knickers and G-strings.

## THE FUTURE?

Well, who knows! But knowing Rod Gasson, we will see more than the odd upgrade for this little beauty. In fact I have been informed that Rod is currently working to implement additional features for a further upgrade of this program. Planned improvements include the ability to export (cut from a text file and save to disk as a separate file) text from within a text file, and to print out data. If these are achieved, Browser will no longer be a very good program, but a great one!

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